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HAMILTON'S CATECHISM
OF
THE ORGAN.

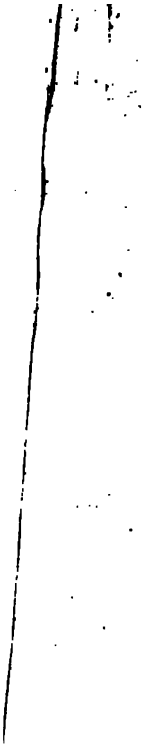
FOURTH EDITION,

REVISED AND MUCH ENLARGED

BY

JOSEPH WARREN.

PRICE FIVE SHILLINGS.



HAMILTON'S CATECHISM

OF

THE ORGAN

WITH

AN HISTORICAL INTRODUCTION,

AND A DESCRIPTION OF NEARLY

TWO HUNDRED AND FIFTY ORGANS.

FOURTH EDITION,

REVISED, CORRECTED, AND MUCH ENLARGED,

BY

JOSEPH WARREN.

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PREFACE TO THE FOURTH EDITION.

SINCE the third edition of Hamilton's Catechism of the Organ was published, in 1851, a great many of the organs therein mentioned have been altered, enlarged, or renewed. Of these, I have, at the cost of a great deal of trouble, obtained correct accounts. Accounts of many new instruments, built since 1851, have also been added. Indeed, the list of organs is greatly enlarged, and other interesting matter introduced.

My best thanks are due to those gentlemen, organists, and organ builders, who have so kindly given me all the information I required, without which this fourth edition would have been little more than a reprint of the former. In particular, I must acknowledge my obligation to Mr. Barker, of Paris, who, besides other valuable points of information, has kindly given me permission to mention a new invention of his in organ-building. He says: "We are now engaged in building an organ of forty stops for

the new Church of St. Augustin, on the Boulevard Malesherbes, and in which an *electrical apparatus* will replace the usual mechanical key-action. The choir organ is entirely finished, and has been examined and approved of by a commission composed principally of members of the Institute, and is played almost daily by different organists, who express themselves in most favourable terms." This letter is dated, Paris, Dec. 18, 1864; and I did hope to have included a list of the stops of this famous organ in the present edition.

JOSEPH WARREN.

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HISTORICAL INTRODUCTION.

Of all musical instruments, the Organ is the largest, the most complicated, the most harmonious, and the most capable of producing an almost endless variety of combinations and effects. It may, indeed, be called the King of Instruments. Hence, a place has been universally assigned to it in our churches, as being, from its unquestionable superiority, the instrument most suitable to the majesty of divine worship. A large and powerful organ, in the hands of a master, in one of his best moments of musical inspiration, is inferior to no source of the sublime in absorbing the imagination. The rush and concourse of sound have been, not inaptly, compared to the full and even volume of a mighty river, flowing onwards, wave after wave, occasionally dashing against some rock, till, sweeping with momentarily increasing vehemence to the brow of a precipice, it rushes down, a wide-spreading and overwhelming flood.

Notwithstanding much laborious research, the origin of the organ is still enveloped in obscurity. Some of the instruments so called were acted upon by

4 5

the force of water, whilst to others the application of bellows is mentioned. The only difference between them, however, was in the mode of introducing the air into the pipes; and their common origin may, probably, be referred to the ancient Syrinx or Pan's Pipe, made of reeds.

It must soon have been observed that there were other means of producing sounds from a pipe than by the mouth: also that the air might be confined in close cavities, and afterwards emitted at pleasure by means of openings of different dimensions. This was applied to united pipes like the Syrinx, or to a simple flute; and subsequently a species of bagpipe was invented. By pursuing this course, they could not fail to arrive at an instrument strongly resembling our Organ. Instead of a leathern bag, they used a wooden case to enclose the wind; above this they placed the pipes, the opening of which was closed by valves, which could be opened or shut at will, in order to produce the embouchure of any one pipe. The descriptions left by authors of different ancient musical instruments, together with their representations on several monuments, prove that the ancients were occupied at different periods with these experiments. For some time they were constantly employed in seeking the best means of introducing air into the pipes. They employed the fall of

water, pumps, steam, and bellows of different kinds. In these experiments, water was most frequently the cause of the motion by which the wind was introduced. They at last stopped at wind-bellows, set in motion either by water or human strength. The application of these various means has distinguished two kinds of organ: that moved by water was called *Hydraulic;* that by wind, *Pneumatic;* although there was no real difference in the principle. It is only by means of air that the pipes can produce a sound. Although the earliest description appears to belong to the *Hydrauli-con*, of which *Ctesibus* of Alexandria, who lived about 120 years before Christ, is said to have been the discoverer, yet it seems natural to suppose that the *pneumatic* organ was the prior invention;* and its antiquity seems confirmed by the discovery of a monument at Rome, mentioned by *Mersenne*, in his *Harmonie Universelle*, of which an engraving is given in *Sir John Hawkins's History of Music*, vol. i, p. 403. The earliest account of any instrument of the kind occurs in *Vitruvius*, book 10, who flourished above a century before the Christian era. His was an *Hy-*

* Forkel, in his History of Music, vol. i, p. 416, as also Vitruvius, say Ctesibus improved, by the use of water and by keys, the Organ, which *Archimedes* (who lived 200 years before Christ) invented.

*draulicon.** But the most ancient notice taken of an instrument to which bellows are adapted, is to be found in the *Anthology*, lib. i, cap. 86, which was first quoted by *Du Cange*, in his *Glossarium mediæ et infimæ latinitatis*, on the word *Organum*. It is the description of an Organ (in an epigram, A. D. 360) said to have been in the possession of *Julian the Apostate*, who lived in the fourth century. Du Cange concluded that it was not an hydraulic instrument, but that it very much resembled the modern pneumatic Organ. The description *Cassiodorus* has given of an Organ, in his explanation of the 150th Psalm, is more applicable to a small hydraulicon than to our modern instruments.

The barbarism which spread among the people of Europe, after the time of *Cassiodorus*, was not only destructive to the arts and sciences, but also to many of the works of art; and it seems that the Organ, such as it then was, shared the same fate. St. Jerome mentions one which had twelve pairs of bellows and fifteen pipes, and was heard at the distance of a mile;

* A very curious engraving of a large organ worked by hydraulic power is given in Barbaro's Italian translation of Vitruvius's Architecture (page 471), in which is shown the water pressure by two pistons worked alternately by the hand. This work was printed at Venice in 1629, in small quarto.

and another at Jerusalem, which was heard at the Mount of Olives.

The date of the introduction of the Organ into the churches of Western Europe is uncertain. The use of musical instruments therein is unquestionably as old as the time of *St. Ambrose*, if not of *Justin the Martyr*, two centuries before; but *Pope Vitalian* is generally allowed to have been the first who introduced the Organ into the service of the Catholic Church, about the year 670. The first Organ we hear of in France was of Greek construction, and sent thither in 757, as a present to *King Pepin*, father of *Charlemagne*, by the Emperor *Constantine Copronymus*. This fact is rendered more worthy of credence, by the assertion of *Walter Odington*, of *Evesham*, a musical writer of the thirteenth century, who, in his tract, *De Speculatione Musicæ*, says that *Anno Domini* 757, *venit Organum primo in Franciam missum a potissimo* [*potentissimo*] *Rege Græcorum Pipino Imperatori.** During the reign of *Charlemagne*, Organs are mentioned as having been brought from Greece into the western parts of Europe. *Walafred Strabo* gives a description of an Organ which existed in the ninth century in a church at *Aix la Chapelle*. The softness of its tone he asserts to have

* This MS. is in Bene't Coll. Cambridge.

caused the death of a female. This was one built by the *Artists* of *Charlemagne* in 812, on the Greek model, which the learned Benedictine, *Don Bedos de Celles*, in his *L' Art du Facteur d' Orgues*, fol. 766, thinks was the first that was furnished with bellows, and in which water was not employed. It is the opinion of Mabillon (*De Carole Magno*, cap. 10) that this instrument contributed greatly to the perfecting the Gregorian chant in France; as it is certain that the use of the Organ passed from the King's chapel, where that had been placed which came from Constantinople, to different churches of the kingdom, before it was common in *Italy*, *England*, or *Germany*. However, the reception of this kind of instrument into the churches of *Verona*, during the same reign, is recorded in some charters mentioned by *Ughelli*.* After the time of Charlemagne, the Organ is first mentioned by *Eginhard*, in 826, in the Annals of *Louis le Debonnaire*. An Organ was built for that Emperor by *Georgius*, a *Venetian Presbyter*, at *Aix la Chapelle*, which, says *Don Bedos de Celles*, was an *Hydraulicon*. Georgius is supposed to have been the father of Organ building in *Germany*, from whence we soon hear of artists in that line being sent into other countries.

* Tome v. p. 604, *apud* Du Cangium, *Gloss. Lat.*

In the latter part of the ninth century, the Germans possessed Organs, and were able to play on them. Zarlino, in his *Sopplimenti Musicale*, book viii, p. 290, says that some authors imagine the pneumatic Organ to have been first used in Greece; that it passed from thence into Hungary, afterwards into Germany, and subsequently to Bavaria. According to Michæl Prætorius,* Germany, at the end of the tenth century, was in possession of several Organs. He says that in 944 there were Organs in the Cathedral Churches at Halberstadt, at Erfurt, and Magdeburg.

Elfeg, Bishop of Winchester, procured an Organ for his cathedral in 951, which was the largest then known, having twenty-six pairs of bellows, requiring seventy men to fill it with wind. It had ten keys, with forty pipes to each. Oswald, Archbishop of York, placed an Organ in the church at Ramsey, with pipes of brass, and which cost £30. There was also one at Canterbury cathedral previous to the year 1174.

Notwithstanding these early attempts, the Organ long remained rude in its construction; the keys were

* "Syntagmatis Musici; de Organographia," &c. &c. 4to. Wolfenbüttel, 1619. This is the second volume of that able work. The first was published at Witebergae, in 1615, and the third at Wolfenbüttel, in 1619; but it is the second volume that treats of the Organ.

from four to five, and even six, inches broad; the pipes were of brass, and the compass did not exceed two octaves in the twelfth century, about which time half-notes appear to have been introduced at Venice. At Venice, about the year 1471, the important addition of pedals was first made, by Bernhard, a German; to whose countrymen we owe most of the other improvements, in bellows, stops, &c. Several elaborate works, in French and German, on the subject, are extant, which are scarcely known, even by name, in this country. Some idea may be formed of the importance of having a fine Organ, from the following fact, related by *Andrew Werkmeister*, in his *Organum Gruningense Redivivum*, 1704-5. "The magistrates of Groningen contracted with David Beck, of Halberstadt, to construct an Organ for the Castle Church of that city. In the year 1592, articles were drawn up between the magistrates and the organ-builder, in which it was agreed by the former that for an instrument, the contents of which were minutely described, a certain stipulated sum should be paid to the latter upon its completion, provided it was approved, after trial and examination by such organists as they should nominate for that purpose." This instrument, in its construction, employed the builder four years; and, in 1596, the most eminent organists in Germany being

invited, the names of all those who signed the certificate of approbation amounted to fifty-three in number, the whole of which may be found in the above-mentioned work.

Of the Organ in this country we find the following particulars, from the reign of Henry VII to that of Charles the First. The earliest organ-builder in England of whom we know anything is William Wotton, of Oxford, who, in 1489, built an Organ for Merton College, and, a short time previously, one for the Chapel of Magdalen College. In the books of this latter College are found entries of payments to other organ-builders at subsequent periods; for instance, in 1509, to John Chamberlyn; in 1526, to Robert Perrott; from 1531 to 1545, to White. Thomas Smyth was an organ-builder in London, in 1514; John Schowt, or Stut, flourished about 1529; Broughe, in 1590; John Chappington, in 1596, about which period he appears to have built an Organ for Westminster Abbey.

Camden mentions one at Wrexham; and Fuller, misquoting it, describes its pipes as being made of gold. This shared the fate of Organs in 1641. The old York Organ (since burnt) was one of those that escaped the destruction of those times (owing, no doubt, to the protecting care of Lord Fairfax, a man who was fond

of music and antiquities, and who preserved the painted windows of that cathedral from the general destruction). Yet Cromwell himself was partial to the Organ, and caused the one at Magdalen College, Oxford, to be removed to Hampton Court. It was afterwards restored to the College, where it remained until 1740, when it was replaced by a new Organ by Schwarbrook: the old Organ was then set up in Tewkesbury Abbey Church, and has been entirely remodelled and greatly enlarged by Mr. Henry Willis.

In 1660, only four organ-builders were to be found in the whole kingdom; Preston, of York; Loosemore, of Exeter; Thamar, of Peterborough; and Ralph Dallans. This led to the introduction of foreign artists: Bernard Schmidt and his two nephews, the elder Harris, and his son Renatus Harris. To these succeeded Schreider, Smith's son-in-law—who built the Organ at St. Martin's in the Fields, which was a present from George the First, who was elected churchwarden—Bridge, Byfield, Jordan, Schwarbrook, Parker, Cranz, Snetzler, England, Avery, or Avory, Green, Davies, Blythe, Nicholls, Gray sen. Hill sen. Elliot, Bevington sen. Bishop, and the present Hill, Gray and Davison, Bevington, Robson, Lincoln, Willis, Holdich, Walker, &c. &c.

A List of Artists who have written on the General Construction of the Organ, its Mechanism, &c. to some readers may be found useful.

Cux or Caus (Solomon de)—*Les Raisons des Forces Mouvantes avec divers Machines*.....1615, 1616, 1620
Förner (Christian)—*Vollkommener Bericht, &c.*..... 1684
Deimling (E. L.)—*Beschreibung des Orgelbaues und der Verfahrungsart, bei Untersuchung neues und verbessertes Werk, &c.* 1692, 1796
Bendeler (Joh. Phil.)—*Organopœia—Orgel-Bau-Kunst*..... 1739
Bernoulle (Daniel)—*Recherches Physiques, &c.*..... 1762
Bedos de Celles (Don Jean Francois)—*L' Art du Facteur d' Orgues.* Paris, fol..... .....1766, 1778
Adlung (Jacob)—*Musica Mechanica Organoedi*, 4to..... 1768
Sorge (George Andreas)—*Der in der Rechen und Messkunst wohlerfahrne Orgelbaumeister, &c.*..... 1773
Halle (Joh. Sam.)—*Die Kunst des Orgelbaues*..... 1779
Ueber Herrn Abt Vogler's *Simplificatons-System und Orgelverbesserungen.*—*Mus. Zeitung*, vols. iv, v, vi.
Schlimbach (G. C. Fr.)—*Ueber die Structur, Erhaltung, Stimmung und Prüfung der Orgel*..... 1801-25
Ferroni (Pietro)—*Memoria sull' uso della Logistica nella costruzione degli Organi e de' Cembali*..... 1804-7
Vogler (George Joseph)—*Erklärung der Buckstaben die im Grundriss der nach dem Voglerschen Simplificatons-System neu zu erbauenden St. Peters Orgel in München vorkommen.* 1806
——— *Vergleichungsplan der vorigen mit der neu umgeschaffenen Orgel im Hofbethause zu München*... 1807
Wolfram (Joh. Christian)—*Anleitung zur Kenntniss, Beurtheilung und Erhaltung der Orgeln, &c.*..... 1815
Schneider (Wilhelm)—*Lehrbuch, das Orgelwerk kennen, &c.*..... 1823
Wilke (Friedrich)—Article in *Mus. Zeitung*, vol. xxvi.
Büttner (Joseph)—*Anweisung, wie jeder Organist verschiedene bei der Orgel vorkommende Fehler selbst verbessern und diesen vorbeugen kann*..... 1827
Reichmeister (J. C.)—*Die Orgel in einem guten Zustande und reiner Stimmung zu erhalten*..... 1828
——— *Unentbehrliches Hülfsbuch beim Orgelbau* 1832
Müller (Wilh. Adolph)—*Die Orgel, ihre Einrichtung und Beschaffenheit sowohl, als das zweckmässige Spiel derselben*..... 1830
Töpfer (Gottlob)—*Die Orgelbau kunst*..... 1833
——— *Erster Nachtrag zur Orgelbau-kunst*..... 1834

Werkmeister (Andreas)—*Organum Gruningense redivivum*..... 1704-5
Bierman (Joh. Hermand)—*Organographia, &c.*..... 1738

Ludwig (Joh. Adam Jacob)—*Gedanken über die grossen Orgeln, die aber deswegen keine Wunderwerke sind*..... 1761
——————— *Traktat von den unverschämten Entehrern der Orgeln*..... 1764
Hess (Joachin)—*Dispositien der merkwaardigste Kerk-Orgelen*.. 1774
Tauscher (J. G.)—*Versuch einer Anleitung zu Disposition der Orgelstimmen nach richtigen Grundsätzen und zu Verbesserung der Orgeln überhaupt*..... 1778
Knock (Nicol. Arnoldi)—*Dispositien der merkwaardigste Kerk-Orgelen*..... 1788

Trost (Joh. Caspar)—*Ausführliche Beschreibung des neuen Orgelwerks auf der Augustusburg zu Weissenfels, &c*..... 1677
Werkmeister (Andreas)—*Orgelprobe, &c*..... 1681, 1698, 1716, 1754
Carutius (Caspar Ernst)—*Examen Organi pneumatici, oder Orgelprobe*..... 1683
Preus (George)—*Grundregeln von der Structur und den Requisites einer untadelhaften Orgel, &c*..... 1722
Fabricius (Werner)—*Unterricht, wie man ein neu Orgelwerk*..... 1756
Zang (J. H.)—*Vollkommene Orgelprobe*..... 1798, 1804
Seidel (J. J.)—*Die Orgel und ihr Bau*..... 1844

THE FOLLOWING IS A LIST OF FOREIGN WORKS ON THE HISTORY OF THE ORGAN.

Havinga (Gerhardus)—*Oorsprong en Footgang der Orgelen*..... 1727
Mittag (Joh. Gottfr.)—*Historische Abhandlung, &c*..... 1756
Schmerbauch (Gott. Heinr.)—*De Organis*..... 1770
Sponsel (Joh. Ulrich)—*Orgelhistoria*..... 1771
Diabacz (G. J.)—*Etwas von dem Kirchenorgeln*.
Vollbeding (J. C.)—*Kurzgefasste Geschichte der Orgel*..... 1793
Giovio (Glam.)—*Pel nuovo Organo*..... 1808
Bühler (Franz)—*Etwas über Musik, Orgel, &c*..... 1815
Michaelis (Chris. Fried.)—*Zur Geschichte der Orgel*..... 1825
Antony (Joseph)—*Geschichtliche Darstellung der Entstehung und Vervollkommnung der Orgel*..... 1832

Many other excellent works have been written on the Organ, the titles of which may be found in Dr. Forkel's *Allgemeine Literatur der Musik*, Leipzig, 1792, 8vo.; Lichtenthal's *Dizionario e Bibliographia della Musica*, Milan, 1826, 4 vols. 8vo.; in Dr. Carl Ferdinand Becker's *Systematisch-Chronologische Darstellung der Musikalischen Literatur*, Leipzig, 1836 and 1839, in 4to. and in C. F. Whistling's *Handbuch der Musikalischen Literatur*, Leipzig, 1844, in 4to.

HAMILTON'S CATECHISM

OF

THE ORGAN.

CHAPTER I.

DESCRIPTION OF THE ORGAN.

GENERAL OUTLINE.

On looking at a large church organ, the first thing which strikes the eye is the *case*, decorated with its various ornaments, as carving, gilding, &c. and with a number of large gilt (and sometimes illuminated or painted) metal pipes, symmetrically arranged, which fill up its exterior openings.

Within the case we directly see a principal piece or member called the *sound-board*, upon which are placed the ranks of *pipes* which form the *stops*. This piece, with its appurtenances, receives the wind through a wind-trunk from the *bellows*, and distributes it to each pipe at the pleasure of the organist. The most remarkable parts of it are the *wind-chest*, the *grooves*, and the *sliders*. The *wind-chest* is the reservoir into which the wind passes through the trunk from the bellows; it contains the *pallets* or valves, with their springs, &c. The *grooves* are canals for the wind, the near ends of which lie over the wind-chest, and are firmly closed

by the pallets. There are as many pallets as grooves. The *sliders* are moveable slips of wood or rules running the length of the sound-board, which serve to admit or exclude the wind from the pipes by means of *draw-stops*, which are placed on each side of the rows of keys and music-desk, in front of the organ. These draw-stops communicate their movements to *trunnels* or iron squares, which transmit them to the *levers*, and these again to the *sliders*, with which they are connected.

It is thus that the organist opens and closes the stops. When he wishes to play on the instrument, he draws the stops which he intends to use, by pulling out the *draw-stops* belonging to the proper sliders; he then with his fingers presses down the keys, which open the pallets by means of a complex piece of mechanism, serving to communicate the action of the keys to the pallets, and which is technically called the *movement*; the wind then enters into the grooves which are now opened, and causes those pipes or stops to speak, of which the sliders are drawn. As the organist lifts up his fingers, the pallets rise, by means of a spring placed underneath each, close the grooves as before, and the keys rise at the same time.

Besides the principal or great organ, as it is termed, there is frequently another smaller one placed within the same case, which has its own sound-board and wind-chest, row of keys, and stops. This is called the *choir-organ*. Formerly, the choir-organ was, in appearance at least, detached from the principal or great organ, and placed in front of it: this is still the case in the organ at Westminster Abbey, and in some instruments of modern build.

A third organ, still smaller than the choir-organ, having its own sound-board, row of keys, and stops, is also placed

in some remote part within the same case. This additional organ is called the *swell*. Its pipes are placed within a box, closed on all sides, so that the tone is scarcely audible, till, by the pressure of the foot on a pedal, a sliding shutter, or Venetian shades, or doors, in front, are gradually opened; the sounds then become louder and louder by degrees, as if advancing from a distance; as the foot allows the pedal to rise, the box again closes, and the tone gradually diminishes.* In large foreign organs, also in some modern English instruments, there is in addition a fourth "*clavier*," termed a *solo-organ*. The organ at St. Marien Kirche, in Lubeck, has one with fourteen stops; and the one built by Messrs. Hill and Co. for the Panopticon (now at St. Paul's Cathedral) has a solo-organ with nine stops.

As the organist with his hands alone could not produce all the effect of which the instrument is capable, another set of keys, called the *pedals*, is placed within reach of his feet; these keys, when they have pipes exclusively appropriated to them, have their own sound-board, wind-chest, &c. or at least their own pallets, and are termed the *pedal-organ*.

At the bottom of the organ is placed the *bellows*, which are kept in constant action by an *organ-blower* while the organist is playing. The bellows supply the wind-chests with all the wind expended in causing the pipes to speak. In old organs, the bellows (of which there were from two to twelve or fourteen pair, according to the size of the instrument) were generally placed outside the case.

Having given a general idea of the organ, we shall now proceed to describe its various parts with more minuteness.

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* Double Venetian shutters have been recently introduced, by which the tone may be increased or diminished to a still greater degree.

CHAPTER II.

BELLOWS, SOUND-BOARD, MOVEMENT, ETC.

§ I.—*Bellows and Wind-trunks.*

Q. What are the nature and function of the bellows?

A. The bellows supply the wind by which the pipes are enabled to speak. They require a good deal of room, for which reason they are generally placed at the bottom of the organ, and the wind is conducted from them to the wind-chest by means of tubes called the *wind-trunks*.

The bellows consist of two wooden boards or *leaves*, which are so connected at the sides by ribs of wood, lying in folds, and fastened together at the edges with leather, that they admit of being opened and closed with regard to one another. The under leaf is fastened so as to be immoveable; to the upper or moveable leaf is affixed a *lever* or *handle*, which, on being pressed down, opens the bellows and sucks in the air; the moveable leaf then gradually returns to its original position by the downward pressure of several *weights* placed on the top of it, and in so doing forces the wind through the trunk into the wind-chest.

In the under leaf of the bellows is inserted a valve, which, as the handle descends, opens inwardly to admit the air, but which immediately closes again, so that the wind shall not escape.

Large organs have generally several pair of bellows, or one very large one supplied by several smaller ones called *feeders*.*

* Great improvements have been recently introduced in organ bellows by using feeders of the oblique genus, which are highly effective.

§ II.—*Sound-board.*

Q. What are the nature and use of the sound-board.

A. The *sound-board* is a box extending nearly the whole width of the organ, rather shallow, but of considerable breadth, divided by partitions into as many compartments or channels, called *grooves*, as there are keys, on the row of keys to which it belongs: these grooves are of various breadths, according to the size of the pipes. Each groove at the end which lies over the wind-chest has an aperture opening into it, which is kept closed by a large valve called a *pallet*. The grooves run the entire breadth of the sound-board, and serve as so many partial wind-chests; one for each key.

The pallets are connected with the keys by *backfalls* and *stickers*, *trackers*, and *rollers*, according to the position of the wind-chest in relation to the keys, so that by pressing down the keys they may be opened at will.

In the boards which close in the tops of the grooves are bored as many holes over each groove as there are *stops* placed on the sound-board: this is called the *under-board*. Parallel to and directly over the *under-board* is situated the *upper-board*, which is perforated with holes to correspond with those in the under-board: in these holes the feet of the pipes are placed.

Between the upper and under boards are situated the *sliders*. These are moveable slips of wood, perforated with holes exactly corresponding to those in the under-board over the grooves, and also to those in the upper-board; and which, on being moved backwards or forwards, either open or close at once all the holes belonging to the pipes of any

one stop. Hence, there are as many sliders as there are stops in the organ.

If a stop be drawn, the holes in the slider exactly correspond with those in the grooves and those in the upper-board, so that, on pressing down a key, the wind can enter into a pipe and cause it to speak.

The pallets belonging to the grooves, being placed in the wind-chest, are kept closely pressed against the bottom of the grooves by means of springs, and are attached to the sound-board by a leathern hinge.

When the pallets are closed, the wind is excluded from the grooves; and when opened, by pressing down the keys, the wind rushes in from the wind-chest.

§ III.—*Wind-chest.*

Q. What is the wind-chest?

A. It is a long rectangular box, connected with the wind-trunk by which it is filled with wind. The wind-chest is formed under the fore part of the sound-board, and is of the same length, but deeper, though not so broad. It is the reservoir into which the wind passes from the wind-trunk.

The pallets which close the bottom of the grooves open into the wind-chest.

§ IV.—*Movement.*

Q. What is meant by the movement in an organ?

A. It is a complex piece of machinery, consisting of a system of levers with their appendages, called *backfalls*, *stickers*, *trackers*, *rollers*, *roller-board*, and *iron squares*, *&c.* which serves to transmit the action of the keys to the wind-chest, pallets, and sound-board.

Q. What is the nature of a *tracker*?

A. It is a thin strip or stick of some light wood, varying in length from one to eight or ten feet. At each end of the tracker is inserted a hook made of wire. Trackers have also wire screws at their ends, and, by leather buttons, can be lengthened or shortened at pleasure.

Q. What is a *roller*?

A. Rollers are stout wooden or iron rods; the former are generally of an hexagonal or octagonal form; the latter, round. The rollers lie horizontally over the keys, and extend from each key to the groove belonging to it. At each end of the roller is inserted a wire, which, being let into a stud, serves as an axis upon which it partially revolves. Near to each extremity of the roller, and projecting from it, is fastened a small piece of iron, perforated with an eye, called its *arm*; in each of these arms is inserted one of the hooks belonging to a tracker.

One arm of the roller lies directly over the key to which it belongs; the other end directly under the groove and pallet which it serves to govern.

Q. What is the *roller-board*?

A. It is a large irregularly-shaped board, placed perpendicularly over the keys, of the same length as the sound-board, and having attached to it as many rollers as may be required in the set of keys to which it belongs. There is a roller-board to each set of keys.*

Q. How do these parts act upon one another?

A. The hook at one end of a tracker is attached perpendicularly to the middle of one of the keys; the hook at its

* This is not always so, the backfalls often supplying the place by being *splayed* as they call it.

other end lays hold of that arm of the roller which stands directly over the key. When we press a key down, the roller partially revolves on its axis, and in so doing draws down the second tracker attached to the arm at its other extremity. This second tracker, by means of its hook and a wire passing through the wind-chest, opens the pallet, and thus admits the wind into the groove belonging to that particular key.

The movement above explained is the *simplest and most usual*, especially in foreign organs; more complex arrangements are often met with, but they coincide with the above in all their essential parts.

In England, for example, a lever, called a *backfall*, is connected with each key; this lever, like the key itself, moves on a centre; but when the key is pressed down by the player, a small pin of wood or wire attached to it, called a *sticker*, throws up the near end of the back-fall, the far end of which, as it descends, pulls down the first tracker, causing the roller to revolve, and thus, by means of the second tracker, opens the pallet as before.

Q. What is the use of the *iron square*?

A. The *iron square* is so constructed as to turn a movement at right angles, generally.

CHAPTER III.

ROWS OF KEYS, PEDALS, ETC.

§ I.—*Rows of Keys.*

Q. What is to be observed with regard to the rows of keys?

A. Large organs have three rows of keys; the middle row for the great organ, the bottom row for the choir organ, and a third row at the top for the swell.*

Two of these rows of keys may generally be so connected by means of a draw-stop called the *copula* or *coupler*, that they may be both played at the same time. In old organs, the copula generally connects the choir-organ with the great organ; but the organs built in the present day connect the swell with the great organ; this is considered a great improvement on the old arrangement. Occasionally also all the three rows of keys may be connected; in all cases, however, the keys of the great organ are those which are to be played upon. Organs in which the pedal-pipes are detached from the keys have a copula for the pedals, which connects them with either the great organ, choir-organ, or both, and also with the swell when this descends low enough.

§ II.—*Of the Pedals.*

Q. What is the nature of the pedals?

A. The pedals are a set of keys lying under and played upon by the feet of the organist. The arrangement of these keys is similar to that of the other rows of keys; except that the pedals comprise the two lower octaves, or an octave and a half, and contain only bass notes. The full compass is now two octaves and a fourth, from CC to F—30 notes.

The stops belonging to the pedals have their own wind-chest; this lies generally at the back of the organ. The pedal-pipes can only be made to speak by pressing down the pedals; never by means of the keys. Sometimes the

* In some of the larger organs, there are four rows of keys or manuals. The fourth row is called the solo organ.

keys are extended down to CCC, the pedal pipes speaking on the lower notes. This is to suit bad pedal players, or for duet playing; usually they only speak on the pedals, however. For, even where there is a copula connecting the keys and pedals, it is only the set of keys that is connected to the pedals and made to speak with them, and never the reverse.

Few of the old organs have any pedal-pipes; the pedals merely serve to pull down the lower keys of the great organ, and thus to supply the place of a third hand. In large organs, the pedals have from eight to ten or twelve stops exclusively appropriated to them; some reed stops, some flue stops.*

CHAPTER IV.

STOPS, STRUCTURE OF THE PIPES, ETC.

§ I.—*The Stops.*

Q. What is meant by a stop?

A. A stop consists of a row or rank of pipes, formed upon one uniform model, and generally placed on the same slider.

Among organ stops, some are only treble stops, and some only bass stops; hence some stops have only two or three octaves in compass; while others extend throughout the entire compass of the instrument.

The pipes belonging to one stop generally stand in the same row or series, though sometimes, for the sake of

* In very large organs there are from 16 to 19 stops in the pedals. The Doncaster organ has 25 stops in the pedals.

symmetry, or from want of room, an exception to this arrangement is permitted.

Q. How are organ stops classed?

A. They are divided into *flue stops* and *reed stops*. The distinction between these two kinds will be fully explained under the head Structure of Organ-pipes.

In another point of view, they are also divided into *foundation* stops, *mutation* stops, and *compound* or *furniture* stops.

Q. What is meant by a *foundation* stop?

A. A stop of which the pipes every where give such notes only as we are prepared to expect from the keys that we touch, or at least the octaves above or below those notes. Thus the diapason, trumpet, &c. are foundation stops, in the strictest sense; the principal, fifteenth, clarion, double diapason, &c. are also foundation stops, since they are octaves to those before mentioned.

Q. What is to be understood by *mutation* stops?

A. Such which, as to pitch, do not correspond with the keys that we touch. They are the twelfth, tierce, and their octaves.

Q. What are *compound* stops?

A. These stops consist of an assemblage of several pipes, three, four, five, or more to each key of the instrument, all speaking at the same time. Among compound stops are the sesquialtera, mixture, cornet, &c.

Compound stops are tuned in octaves, thirds, and fifths to the foundation stops.

§ II.—*Draw-stops.*

Q. What are the draw-stops?

A. The draw-stops are situated in the front of the organ,

by the sides of the rows of keys. On the knobs at the ends of the draw-stops, or occasionally underneath or above them, is written to what stop each draw-stop belongs. The draw-stops are connected with a *moveable lever*, by means of which the sliders are put into motion. If we draw out a knob,* the lever revolves and draws back the slider, so that the holes which are bored through it exactly coincide with those in the sound-board and in the upper-board upon which the pipes are placed; and, consequently, in playing, the pipes of this stop are enabled to speak. If we again push in the draw-stop, these holes are once more closed.

§ III.—*General Structure of Organ Pipes.*

Q. Describe the general structure of the pipes.

A. Organ pipes may be distributed into flue-pipes and reed-pipes. They are made either of metal or of wood. The form of the metal pipes is either that of a cylinder, or of a cone, direct or inverted.† The form of the wooden pipes is generally that of a rectangular prism, though occasionally they are also pyramidal; these being the forms most easily constructed, and most advantageous as to tone.

Pipes are either altogether *open* at top, or they are *stopped* totally or partially; the wooden pipes in the former case by means of a stopper, and the metal pipes by a cap. Some of the stopped pipes have a small tube passing through the centre of the cap or stopper; this is called a *chimney*: these of course are only partially stopped.

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* An iron square is first put in motion, then the lever, and lastly the slider.

† Sometimes a little of both, for some pipes; the *vox humana*, for example.

§ IV.—*Structure of Flue-Pipes.*

Q. What is the nature of a flue-pipe?

A. The *body* of a metal pipe of this description is generally a cylinder, having a small portion towards its lower end flattened a little inwardly, so as to produce a straight edge: the part thus pressed in does not extend quite to the bottom of the body of the pipe, it having a small portion cut off. The edge thus formed is termed the *upper lip*.

The *foot* is a tube of a conical form, having a straight edge formed in the same manner as that in the body of the pipe: this is termed the *under lip*.

The top of the foot is closed at its broad end by a circular metal plate called the *langward*, a segment of which is cut away so as to produce a straight edge parallel to that of the under lip, and leaving a narrow *fissure* or *flue* between them, directly underneath the straight edge of the upper lip.

The body and foot are soldered together with the lips exactly opposite to one another: and the aperture which is caused by the upper lip not exactly extending to the bottom of the body of the pipe, together with the fissure already described, constitute the *mouth* of the pipe.

The mouth of a wooden pipe is constructed on the same principle; it also having an upper and an under lip, a langward (or languid), and a narrow fissure to admit the wind into the body of the pipe in the direction of the upper lip.

§ V.—*Structure of Reed-pipes.*

Q. What is the nature of a reed-pipe?

A. Reed-pipes are generally made of metal; the body of the pipe is either of a conic or cylindrical form.

The mouth-piece of a reed-pipe consists of a *metal block*,

a *reed*, a *tongue*, and a *crooked wire;* all of which go into a hollow conical foot called the *socket*. The body of the pipe is soldered to the mouth-piece.

The *block* is a cylindrical piece of metal, having a ring at the top to prevent it from sinking too far into the socket.

The *reed* is a small tube of which a portion is cut away lengthwise; it passes through the centre of the block and is fastened to it.

The *tongue* is a thin elastic slip of metal which is somewhat bent, and which is applied so as nearly to close that part of the reed which is cut away. It is fixed in the block by means of a wooden wedge.

The *wire* passes through the block on the side of the tongue; the lower part of this wire is turned up and bent so as to press horizontally against the tongue. The upper part of the wire is a little crooked, or filed in a notch, to receive the tuning knife, which is used either to raise or depress it; this lengthens or shortens the tongue, and by this means flattens or sharpens the pitch of the pipe.

The peculiar tone of reed-pipes arises from the tongue; for the wind rushing through the opening between the tongue and the reed, causes the tongue to vibrate: the quicker these vibrations, the more acute the pitch of the pipe. To save expense, large reed pipes are sometimes made of wood.

The various qualities of tone in the different reed stops depend chiefly on the shape of the pipes.

§ VI.—*General Properties of Organ Pipes.*

Q. How is a flue-pipe made to speak?

A. The wind, passing through the foot of the pipe and through the narrow fissure already described, impinges

against the narrow edge of the upper lip and causes it to vibrate. These vibrations are directly communicated to the column of air within the body of the pipe, and thus cause it to speak.

Q. Upon what does the pitch of organ pipes depend?

A. It depends almost altogether on their lengths; very little upon their forms or their diameters, except in very large pipes; the latter circumstance, however, greatly influences the qualities of tone.

The length of the pipes belonging to any particular stop is generally governed by the length of that which is necessary to produce the note This note was formerly the lowest note on the organ, and it is still retained as a sort of standard.

An *open* pipe necessary to produce the above note must be eight feet long in its body,* as the length of the foot has no influence whatever on its pitch.

A *stopped* pipe producing the same note will only require to be four feet in length; as the vibrating column of air strikes against the cap at the top, and is reflected back again to the mouth, before the pipe can speak; hence the air passes through twice the distance it would have to go in an open pipe of the *same* length, and the pipe therefore sounds an octave lower than it would if not stopped.

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* This depends on the *diameter*, and hence the difference between large and small scale pipes.

CHAPTER V.

THE STOPS.

Q. Enumerate and describe the different stops used in general in modern organs.

A. The principal stops may be described as follows:

1. *Open Diapason* (Open Unison).—This is one of the principal stops, and is the foundation and most essential stop in the organ.

It is called Open, from its pipes being open at the top: the pipes are made of metal, the lower ones frequently of wood, and, in large organs, they are generally placed in front.

2. *Stopped Diapason* (Stopped Unison).—The pipes of this stop are generally made of wood, and stopped at their tops by square plugs; though sometimes the pipes in the treble are made of metal. The two Diapasons are the foundation of the organ.

3. *Principal.*—This stop is tuned an octave higher than the Diapasons. It is composed of open metal pipes.*

4. *Twelfth.*—This is an open set of pipes, a twelfth above the unison Diapasons, and runs throughout the instrument. It is sometimes combined in the *Sesquialtera*, and not a separate stop.

5. *Fifteenth.*—This stop consists of open metal pipes. It is tuned an octave above the Principal, and is therefore two octaves above the Diapasons. It covers the Twelfth, which should not be drawn without the Fifteenth.

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* In Germany the Principal is the same as Diapason in England, the Germans not using the word Diapason at all.

6. *Sesquialtera.*—A compound stop of three or more ranks of small open metal pipes, which are tuned in thirds, fifths, and eighths, to the foundation stops; so that every key, when pressed, produces a common chord. The intervals which the pipes form with the *Diapasons* are the 17th, 19th, and 22nd. Towards the top of the instrument, the pipes become so extremely shrill, that it is usual to make several breaks or repetitions in the series, by employing pipes similar to those used in the octaves below, and thus transposing the notes.

7. *Mixture.*—This is a compound stop, consisting of two, three, four, five, or six ranks of small metal pipes, tuned in thirds, fifths, and eighths, to the foundation stops. Its tone is shriller than that of the *Sesquialtera.**

8. *Cornet.*—This is also a compound stop, consisting of three or more ranks of open metal pipes, tuned in thirds, fifths, and eighths, to the foundation stops. It is only a half-stop, as it seldom or never runs below middle C. Its tones are loud and rather harsh; for which reason it is not generally used in modern organs; as, for all useful purposes, the *Sesquialtera* supplies its place. In some organs, the Cornet is nothing more than the treble of the Sesquialtera.

9. *Larigot* (or Octave Twelfth) is a stop consisting of open pipes, tuned a twelfth above the Principal. It is one of the Mutation stops, running throughout the instrument.

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* Seidel says that, in some organs, "there are mixtures from six to eight, and in old organs, even from ten to sixteen ranks, both in the manual and pedale." He remarks also, "that a mixture of so many ranks is a most absurd thing; for by the horrible noise it produces, the other registers lose their gravity and dignity, and the full organ produces nothing but a benumbing, stupifying noise."—*Die Orgel und ihr Bau*, Breslau, 1844, page 106.

10. *Nasard.*—The French name for the *Twelfth.* See *Twelfth.*

11. *Tierce.*—An open metal stop, tuned a major third above the fifteenth. It is seldom used, except in large organs, as its place is supplied by the compound stops.

12. *Furniture.*—This is a compound stop of from 2 to 5 sets of very small open metal pipes, tuned three octaves above the Diapasons. Its tones are very shrill, and it is only used in the very full organ.

13. *Trumpet*—This is a very powerful reed stop, voiced in imitation of the instrument of that name. It is in unison with the Diapasons; and it renders the chorus or full organ more complete and brilliant, as it strengthens the fundamental sounds, and diminishes the predominance of the Sesquialtera, Mixture, Furniture, Cornet, &c. The pipe of the *Trumpet* consists of a conical tube, fixed in a metal block, in which also are the tongue, reed, and wire. This stop, like all other reed stops, is tuned by the elevation or depression of the wire.

14. *Clarion* is also a reed stop, and is tuned an octave higher than the Trumpet. It is only used in the full organ.

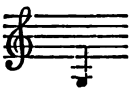
The following seven stops properly come under the term *Solo Stops*, and may be drawn alone, or with one of the Diapasons.

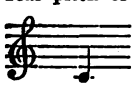
15. *Dulciana* (or *Salcional*).—This is an open Diapason set of pipes on a smaller scale, but voiced much softer and sweeter. A good *Dulciana* is a great addition to an organ (especially those that have only two rows of keys), as it may be used in place of one of the Choir Diapasons.

16. *Flute.*—The pipes of this stop are generally made of wood, and open, though formerly they were made of metal,

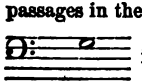
and stopped. This stop is tuned in unison with the Principal; but it is much softer and sweeter in tone.*

17. *Hautboy.*—A fancy reed stop, the tone of which is in imitation of the Oboe. The tubes are narrow and somewhat conical, spreading out at the top. It seldom extends

below

18. *Claribella.*—A stop of modern invention, of a very pleasing quality of tone; it is like the Flute and gives the real pitch of that instrument. This is a half-stop from

 and, in general, is accompanied with the Stopped Diapason bass. It is sometimes combined in one stop, under the name *Stopped Diapason.*

19. *Cromorne*† (commonly, but improperly, called *Cremona*), from *Krum-horn*, or crooked horn, is a reed stop, of a pleasing quality of tone. This stop is very useful for solo passages in the range of the tenor. It often extends only to

 in which case tenor parts cannot be played.

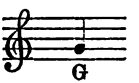
20. *Vox-humana* (human voice) is a reed stop in unison with the Diapasons, the tones of which are supposed to resemble the human voice. Its tubes are cylindrical, with this difference, that blocks are placed within the tubes, and the sound issues through holes bored in these blocks, which

* This is an 8ve flute, though not so called by organ-builders.

† Or Cormorne, from *cor*, "the horn," and *morne*, "mournfully, still, and soft," meaning a soft, quiet horn.

occasion their peculiarity of tone. There are various forms of pipes. The largest pipes of the *Vox-humana* are not above twelve or fourteen inches.

21. *Keraulophon.*—This is a stop of Messrs Gray and Davison's invention. It resembles a reed of the most delicate quality of tone, and which, from a different construction, is not so liable to get out of tune with the change of the temperature. It is an open metal pipe, of 8 feet, with a sliding tube on the top, and a hole cut in the back.

22. *Bassoon* (Fagotto).—A reed stop, tuned in unison with the Diapasons, the pipes of which, like the *Hautboy*, are of a conical form. This is only a half-stop, and seldom extends above

The two following stops belong to the Pedal Organ.

23. *Double Diapason.*—An open set of metal or wood pipes, tuned an octave below the Diapasons. It is the principal stop, in general, to the pedals; and sometimes it is connected with the keys of the organ.

24. *Double Trumpet* (Trombone) is the most powerful stop in the organ. The pipes of this reed stop are of the same length as the Double Diapason, to which it is tuned in unison.

Other stops have been lately added, by Hill, Robson, Bishop, Willis, Lincoln, Messrs. Gray and Davison, and others, in imitation of the large German and other organs; as the Posaune, Bourdon, Tenoroon-Diapason, Doublette, French Horn, Harmonica, Corno-Trombone, Corno-Clarion, Claribel-Flute, Oboe-Flute (not a reed), Wald-Flute, Saube-Flute, Echo-Dulciana-Cornet, Flageolet, Piccolo, Quint or Double-Twelfth, Decima and Duodecima (from the Frank-

fort, Seville, and other great organs), Diaocton, Super-Octave, Cymballe, Contra-Shawm, Tenoroon-Shawm, Unison-Grand-Posaune, Super-Clarion, Psaltery, Wald-Krum-Horn, Dulcima, Celestina, Contra-Serpent, Corno-di-Bassetto, Bombarde, Ophicleide, Cornetto, Sub-Bass, Tenoroon-Trumpet, Swiss-Cromorne-Flute, Rohr-Flute, Regal or Violin-Reed, Glockenspiel, Gems-Horn, Contra-Bourdon, Contra-Fogotto, Echo-Piccolo, Echo-Dulciana-Cornet (a stop of five ranks of pipes), Clarion-Fifteenth, Clarinet and Chalumeau, Cromorne-Flute, Clarion-Posaune, Contra-Posaune, Carillons, Echo-Trumpet, Tenth or Double-Tierce, &c. &c. which have been added to give weight, power, and brilliancy to very large organs. Many of the stops are, as may be perceived, fancy solo stops, in imitation of the various instruments they are named after. To enter into a description of these, would occupy more space than the limits of this work will admit.

CHAPTER VI.

ON COMBINING THE STOPS.

Q. What is to be observed with regard to combining the stops on the organ?

A. As there are a number of unison stops, as well as compound stops, such as the Twelfth, Sesquialtera, Mixture, &c. sounding thirds, fifths, and eighths together, the latter-mentioned stops must never be drawn alone, but should be *added* to the Diapasons, &c. which are the body of the organ; and should be covered by the Principal, which is an

octave above the Diapasons, and the Fifteenth, two octaves above the same.

The Open and Stopped Diapason may either be drawn singly or together; so may the Dulciana be drawn by itself, or with the others. but we will consider each organ separately.

§ 1.—*Great Organ.*

In drawing the stops, take them in the following order:

STOPS.

1. Open Diapason. The Open or Stopped Diapason may be used alone.
2. Stopped Diapason.
3. Principal.
4. Twelfth. } The Twelfth must not be drawn without the Fifteenth, but the Fifteenth may without the Twelfth.
5. Fifteenth. }
6. Sesquialtera.
7. Mixture.
8. Trumpet, &c. &c.

The Trumpet (unless used as a solo-stop with the Diapason) should not be drawn without the Sesquialtera, or Sesquialtera and Mixture. The Sesquialtera may be added to Nos. 1 and 5, without the Mixture, but not *vice versâ*, but both may be added without the Trumpet.

If the organ is very large, all other stops besides those above mentioned should only be drawn in addition.

If, as is sometimes the case in large organs, there are duplicates of the stops numbered 1, 2, and 3, they may be drawn with the compound and mutation stops, or 3 or more Diapasons may be used together: this will enrich the effect of the whole chorus of stops, and cover, or at least qualify, the shrillness of the more acute stops.

The pedals may be used to strengthen the bass in all loud passages, and particularly in long holding notes.

Slow movements for the two Diapasons only, of a grave and solemn character, are often met with in voluntaries. They generally consist of full harmonies,* gliding gently into one another, and having frequent suspensions in one or more of the parts.

The Trumpet and Clarion should be reserved for passages of a striking character and of short duration; as the *stretto* or node of a fugne.

§ II.—*Choir Organ.*

Q. What is to be observed with regard to the choir organ?

A. The stops of the choir organ are more delicately voiced, and constructed on a smaller scale, than those in the great organ. For this reason, it is used to accompany solos, duets, trios, &c. for voices, and to play the *piano* passages in choruses and organ pieces.

The *fancy* stops, or at least some of them, are usually placed in the choir organ.

A choir organ generally contains the following stops:

STOPS.

1. Open Diapason.
2. Stopped Diapason.
3. Dulciana.
4. Principal.
5. Fifteenth.
6. Flute.
7. Cremona.

* Some excellent specimens in this class are to be found in Warren's Beauties for the Organ, as also in his Soft Movements, and Sacred and Church Voluntaries, and in other works; all of which are published by Messrs. Robert Cocks and Co.

The Flute and Cremona, being solo stops, may be drawn alone, or with Stopped Diapason (the Flute being of 4 feet), or all three may be used together; but the Cremona is not good without the Stopped Diapason.

The Dulciana is also sometimes used alone as a solo stop.

§ III.—*Swell Organ.*

Q. What is to be observed with regard to the swell organ?

A. The swell, from its admitting of a perfect *crescendo* and *diminuendo*, is particularly adapted for ornamental solo playing, and for accompanying solo voices.

The swell organ usually contains the following stops:

STOPS.

1. Open Diapason.
2. Stopped Diapason.
3. Principal.
4. Fifteenth (sometimes, and sometimes also Double Diapason).
5. Hautboy.
6. Trumpet.

The Trumpet is also treated as a fancy or solo stop, and, like all fancy stops, drawn with the Diapason only.* In Trumpet pieces, which are often met with in the older voluntaries, it is used as an *echo* to the Trumpet on the great organ.

The style of the passages given to the fancy stops must be that of the instruments which they are intended to imitate.

As the swell does not in every organ extend throughout

* The Trumpet used as a solo stop is better with both Diapasons.

the entire compass of the instrument, the basses to the above must generally be played on the choir organ.

In using the swell, the crescendo and diminuendo should be as gradual as possible, except in the case of *sforzando*, *&c.**

CHAPTER VII.

USE OF THE PEDALS.

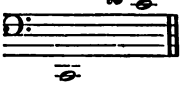
Q. What rules are to be observed in playing the pedals?

A. The organ is distinguished from every other keyed-instrument by its pedals. With their assistance, the feet perform the office of an additional hand, and the hands are thereby at liberty to introduce other parts, either to reinforce the harmony, or to vary the designs in the melody. Hence we often meet with organ compositions in four, five, or even more parts. The organist should therefore endeavour to

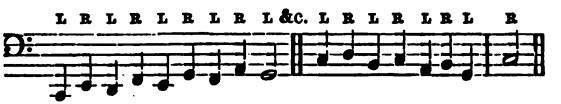
* Seidel relates that "another invention to obtain the *crescendo* and *decrescendo*, by the medium of the so-called *swell*, was made in 1809 or 1811, by the Frenchman, Grénié, who called his instrument *Orgue expressive*. It consists of a single register, with *free* vibrating tongues, extending from F to F, five octaves. The wind is produced by four bellows, of which two and two are joined together. The player himself blows them by treading alternately upon two pedals, which are connected with the bellows by a lever. The tone can gradually as well as suddenly be increased to the highest degree of power, and imitates the hautbois or clarinet, the English horn [cor-Anglais], and even, especially on the lower notes, the ophicleide. Most striking is the imitation of the bassoon."—*Die Orgel und ihr Bau* (p. 18), Breslau, 1844.

This is precisely what is called the harmonium or melodium. The principle is exactly the same, and is not, as was thought, a new invention, but a revival and modification of what Grénié then invented.

make himself as dexterous in the use of his feet as of his hands.

In the following examples, we shall suppose that the pedals extend two octaves, from 

as is now generally the case in modern organs.†

To use the pedals properly, that is, so as at once to connect the sounds, and yet attain the necessary degree of execution, we must as often as possible employ the two feet alternately, as in the following examples:—

When several notes follow one another diatonically, it becomes necessary to pass one of the feet over or under the other. In the notes of the lower octave, it will be best, in ascending, to pass the left foot *under* the right, and *over* it in the second octave. The contrary takes place in descending for the right foot.

In the following examples, the line placed under the letters indicates that we must pass one foot *under* the other;

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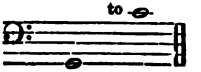
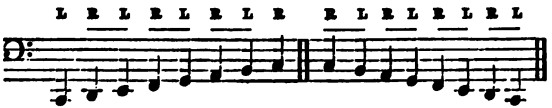
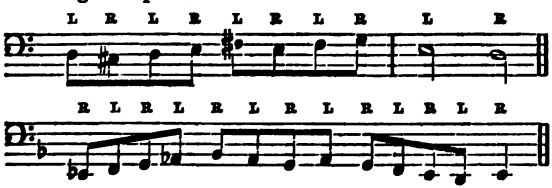
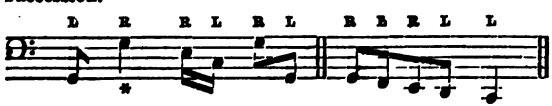
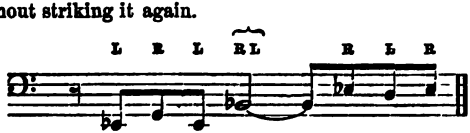
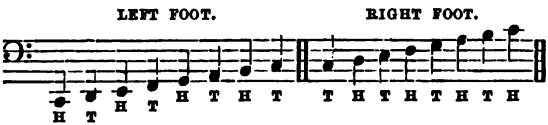
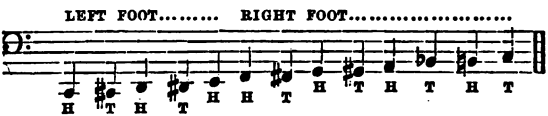
* In very large organs, they extend from CC to E or F.

† Although, in general, the compass of the pedals is as stated above, yet in many organs the compass is only from 

one octave and a half.

a similar line drawn *over* the letters indicates that one foot must pass over the other.

In ascending scales, we cannot always begin with the left foot, nor, in descending scales, with the right; as the following examples will demonstrate:—

We cannot always avoid using the same foot twice in succession.

The foot may sometimes be changed on a long note without striking it again.

* G, point of foot; E, heel of same foot. Thus we may proceed in next Example also.

There is another method of using the pedals, which consists in alternately employing the toe and the heel of the same foot. In this case, the left foot is sometimes used for the lower octave, and the right foot for the upper octave, or both may be introduced in either octave.

In the following examples, T signifies the toe, H the heel.

This mode is, perhaps, less convenient than the other in a diatonic succession of notes; but it has its advantages in chromatic passages. Example:

Another mode of playing pedals is, occasionally to use the right and the left side of the sole of the foot, which mode is very useful on two black keys; but the best method of pedaling is that which combines *all* the ways as occasion may require.

In the *Appendix* we shall give some more examples on the use of the pedals, both alone and in connection with the sets of keys. See Exercises 1 to 40.

CHAPTER VIII.

ON SOLO ORGAN PLAYING.

Q. Can any rules be given for solo playing on the organ?

A. So much depends upon the caprice of the performer, that it appears scarcely possible to do so.

What relates to the drawing of the stops, singly and in succession, we have already explained. To acquire a knowledge of the style most appropriate to the various fancy stops, the student must have recourse to modern voluntaries for the organ, which contain one or more movements expressly calculated to display the power and variety of the instrument.

We shall merely insert one or two less obvious combinations, which will be found useful in solo playing.

Great Organ.—Open or stopped diapason, or together, for the right hand.

Swell.—Plain and simple chords in the left hand.

Pedals.—To play the bass by coupling the pedal keys of the great organ.

This will be found a very pleasing combination for slow airs and sacred melodies. The following combination will also serve for the same purpose.

Choir Organ.—Stopped diapason and principal in the right hand for the melody; *swell* and *pedals* as before for the harmony and bass.

Another very effective combination is obtained by coupling the *full swell* with the diapasons of the great organ, and many other combinations not here specified.

CHAPTER IX.

§ I.—*On Accompanying Voices on the Organ.*

Q. What are the rules relating to this subject?

A. They may be briefly stated as follows:

Tutti passages, if *loud*, must be accompanied on the great organ, as many stops being drawn as the number of voices and the character of the music may require.

Tutti passages, if *soft*, must be accompanied on the choir organ; generally speaking, with the diapasons and principal.

Soli passages must be accompanied on the choir organ with the dulciana; or dulciana and stop diapason.

Occasionally also, we may employ for this purpose the swell with the two diapasons for the right hand, and the choir organ as before for the left, where the swell does not extend down to CC or gamut; particularly if there are occasional obbligato passages of accompaniment of a light and elegant character.

§ II.—*Accompaniment of Psalm-singing.*

Q. What is to be observed on the manner of accompanying the psalms, &c.?

A. One of the chief purposes to which the organ is applied in the Protestant service is the accompaniment of the psalms. The melodies to which the psalms are sung are of the simplest and most natural description, as such only are adapted to be sung by a congregation or any considerable part of them.

Q. Has psalm-singing been long introduced in the church?

A. The practice of singing psalms in divine worship may be traced back to the time of Moses, David, and Solomon.

The earliest Christians introduced psalms and hymns in their worship, particularly in the Eastern and Greek churches. A canticle by St. Ambrose, Archbishop of Milan, is still extant among us. This is the well-known "Te Deum."

In the Western churches, Pope Gregory the Great (who instituted the Gregorian Chant), and, in later times, Luther, Calvin, and others, contributed largely in various ways to the improvement and general diffusion of this kind of singing.

Q. Have not the Germans bestowed much pains on the improvement of psalm-singing?

A. Yes: and also on the divers ways in which those melodies may be accompanied on the organ. Many extensive collections of psalm tunes, harmonized by some of their greatest composers, have been published under the name of *Chorale.*

As these several ways of accompanying such melodies admit of being applied to our own psalm-tunes, we shall proceed to explain and exemplify them.

1. *The ordinary manner in four parts.*

In this, which is the usual mode of accompaniment, the right hand plays three out of the four parts, the melody being always the upper part, while the left hand merely strikes a plain bass. See No. 41, Appendix.

This way is not so well adapted to the nature of the human voice, because the upper parts are too high, too close to one another, and generally too remote from the bass.

2. *In four parts with dispersed harmony.*

This, which is the more modern and preferable manner, was first introduced by Sebastian Bach: it is much better adapted to the different species of voices. Two parts are generally played by the right hand, viz. the treble and the contralto, while the left hand plays the tenor and bass parts, or the tenor only, the bass part being played on the pedals. See Example 42.

In this manner are harmonized the collection of chorals by Sebastian Bach, Kittel, Hiller, Vogler, Rinck, and others.

3. *With full harmony in both hands.*

This way is well adapted for solemn melodies, and a numerous choir of voices. See Example 43.

4. *With the harmony varied on each repetition.*

See Examples 44, 45, by Sebastian Bach.

5. *In five real parts*, including an *obbligato* part for the pedals. See Examples 39, 46.

This kind of accompaniment may be still further diversified by the introduction of passing notes in the middle parts. See Example 47.*

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* For further examples in playing psalms, the reader is referred to Warren's Psalmody, his Instructions for the Organ, page 20, Appendix to Ditto, as well as a Collection of 24 Psalms and Hymns, with Interludes, by the same author; all published by Messrs. Cocks and Co.

CHAPTER X.

On Accompanying the Chant.

Q. What rule should be observed with respect to the chant?

A. The organist's first care should be to read the words of the psalms for the day, then to select a chant suited to the character and expression of the words: for instance, on a joyful occasion, as on the 30th day of the month, he should select a chant in the major mode, as Henley's, in E flat, Lord Mornington's well-known chant in E, or Jones's in D, or any other suitable in the major mode. Should the words be of a penitential character, then a chant in the minor mode is best; but if the words are partly penitential and partly joyful, then a chant termed changeable should be used; that is, one that can be played either in the major or the minor mode.

Q. How should the chant be accompanied?

A. The organist should be careful, after giving out the chant, while the children or choir are chanting on the reciting note, not to hurry them, but to watch closely the words as they are chanted, so as to accompany properly at the turn of the melody, as the several verses of the Psalms are not always of the same length. His playing also should exactly suit the character and expression of the words; and the change (if using a changeable chant) must be made exactly in the right place, from the minor to the major, or the major to the minor, as the case may be. For instance, as on the 28th day of the month, when, in the Evening Prayer, we have the 136th Psalm, "O give thanks unto the Lord," &c. the whole of this Psalm should be chanted in the major mode; then, on Psalm 137, "By the waters of

The times usually set apart for this species of composition are three:—at the commencement of the service before the first lesson; and after the final benediction.

§ I.—*The Opening or Introductory Voluntary.*

It is customary for the organist to begin the opening voluntary as soon as the minister enters the church, and pursue his subject during the short interval of time that elapses before he appears in the desk. This introductory voluntary is supposed to have a character of its own; it should be in a grave and solemn style, abounding in full, close-wrought harmony, and inspiring a feeling of reverential awe. The kind of pieces best suited for this purpose are short diapason pieces on the full or choir organ, abounding in suspensions, &c.

§ II.—*The Middle Voluntary.*

The middle voluntary, which is usually played on the swell or choir organ, before the first lesson, is generally a piece lasting about eight or ten minutes in performance, in which fancy stops are sometimes used, and consists of some devotional subject, selected from the vocal works of Handel, Haydn, Mozart, Beethoven, &c. or pieces composed expressly for that portion of the service. The Editor of the present edition of this work has adapted many beautiful compositions by the above-named great composers, in his *Beauties for the Organ*, suited as middle voluntaries.*

* We also recommend Czerny's 12 Middle or Introductory Voluntaries, 20 Preludes, 6 Preludes and Fugues, and Prelude and Fugue, all by the same author, and published by Messrs. Cocks and Co. as admirably calculated for this purpose.

§ III.—*The Concluding Voluntary.*

The concluding or out-voluntary is that in which the organist generally shows off the full power and effects of the instrument he presides over. The pieces best suited for this occasion are those expressly composed for the organ, consisting generally of an introduction and fugue, wherein the pedals may be employed. The masterly fugues of Handel, Sebastian Bach, Graun, Albrechtsberger, Eberlein, Rinck, Hesse, and others, leave nothing to be desired in that class of writing, further than an effective performance. In this the organist should consider he must use all his powers, and consider that it is no child's play that he is about to perform. Nothing can be better than a fine performance of one of Bach's or Handel's fugues on a large and powerful organ: the deep tones swell and increase in power; the volume of sound that rolls throughout the church, re-echoed by the arched roof, now and then seeming to die away, then increasing to that extent that every pipe seems employed—produces that feeling of awe, that sense of holiness, which all that have a soul for music must feel, while listening to the voluntary.

It is usual, in most churches, on Sacrament Sundays, not to play a voluntary at the conclusion of the service. Whence this originated we know not.*

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* The service in the morning ought to end with the Prayer for Christ's Church militant, which being in the Communion Service, the administration of the Lord's Supper is only a continuation of the service, as at the Roman Catholic chapels; which is, perhaps, the reason why a voluntary is omitted.

CHAPTER XII.

AN ACCOUNT OF THE ORGANS IN HER MAJESTY'S CHAPELS ROYAL, AND OF THE CATHEDRAL AND COLLEGIATE CHURCH ORGANS IN ENGLAND AND WALES, ETC. ETC.

The following description of the chapels royal, cathedral, metropolitan, country, as well as other organs, will not perhaps be thought uninteresting to organists and others.

HER MAJESTY'S PRIVATE CHAPELS.

The organs in the Queen's private chapels at Buckingham Palace and Windsor Castle originally formed one instrument, built by Messrs. Gray and Davison for the Music Room, Windsor Castle, in 1842; but on the alterations, consequent on the formation of the present private chapels, taking place in 1843, it was divided and rebuilt; the one part, or great organ, being adapted to the chapel at Buckingham Palace, and the other, consisting of the large swell and pedal pipes, now form the instrument in the chapel at Windsor Castle. The following is a description of each organ as rebuilt.

Buckingham Palace.

The organ in this chapel is on the left side of the altar, about nine feet from the floor; the keys are so placed that the organist sits beneath it, and no apparent connection exists between them and the instrument. The bellows are beneath the chapel. The compass is from GG to F, and it contains

1. Open Diapason
2. Dulciana
3. Stopped Diapason
4. Principal
5. Twelfth
6. Fifteenth
7. Sesquialtera, 3 ranks
8. Trumpet

There is an octave and a half of pedals, and also composition pedals for changing the stops. Some of the pipes of this organ are the work of Green, and formed part of a favorite instrument of His Majesty George the Third.

His Royal Highness the late Prince Consort's Organ, Buckingham Palace.

This instrument was built by Messrs. Gray and Davison, in 1841, for His Royal Highness. It stands in a handsome room in the late Prince's private apartments, in the left wing of the Palace; it is divided, and in appearance resembles *two* beautiful cabinets, standing on each side of the fire-place, at one end of the room. There is no apparent communication between the two parts, the connection being ingeniously contrived behind the pier glass, over the fire-place. The bellows is not in the room, but is placed in an adjoining passage, where it appears like a table. It is a fine instrument, on the German plan, the keys being to CC, 8 feet, and the pedals to CCC, 16 feet. It contains

1. Open Diapason
2. Dulciana
3. Stopped Diapason
4. Principal
5. Fifteenth
6. Hautboy

Enclosed in a Swell Box.

The pedal pipes are bourdon, or stopped, 16 feet tone; and there are four composition pedals.

Chapel Royal, St. James's Palace.

This organ, which was a present from his late Majesty William the Fourth, was built in 1837, by Messrs. Hill and Davison. It has 3 rows of keys, from GG to F. An octave and a half of unison pedal pipes; 29 stops, 11 in the great organ, 8 in the choir, and 10 in the swell; 4 copula stops, and 8 composition pedals.

GREAT ORGAN.

1. Open Diapason, No. 1
2. Ditto ditto No. 2
3. Stopped Diapason
4. Principal (metal)
5. Ditto (wood)
6. Twelfth (metal)
7. Fifteenth (wood)
8. Ditto (metal)
9. Sesquialtera, 4 ranks
10. Trumpet
11. Octave Trumpet or Clarion

CHOIR ORGAN.

1. Open Diapason, No. 1
2. Ditto ditto, or Dulciana, } No. 2
3. Stopped Diapason
4. Flute
5. Cromorne
6. Bassoon
7. Principal
8. Fifteenth

SWELL ORGAN.

To Gamut G

1. Open Diapason, No. 1
2. Ditto ditto, or Dulciana, } No. 2
3. Claribella
4. Stopped Diapason
5. Principal
6. Fifteenth (wood)
7. French Horn
8. Oboe
9. Trumpet
10. Clarion

PEDAL ORGAN.

Unison open pipes to GG, 10½ feet, an octave and a half

ACCESSORY STOPS, ETC.

Four Couplers (1 to 4)
Three Composition Pedals (5 to 7)

Chapel Royal, Whitehall.

This organ was originally built by Father Schmidt (who was invited over by King Charles the Second, about 1680, to build an organ for the Royal Banqueting Hall, at his Palace at Whitehall, and is the first organ Schmidt built in this country.

The case, and some of the wood pipes, remain to this day. It is in oak, of noble design, with four towers, and most elaborately carved, about 24 feet high by 10 feet in breadth, surmounted by the Royal Arms. It was rebuilt in 1814, by Elliott; it then had 20 stops. In 1844, Messrs. Hill and Son added an entire new swell, of large dimensions, and other improvements. The organ contains 4 rows of keys, and 37 stops. Compass from GG to F in alt. Pedal pipes from FFF up, 21 notes, to D, with choir organ in front of the Gallery.

GREAT ORGAN.
1. Open Diapason
2. Stopped ditto
3. Principal
4. Twelfth
5. Fifteenth
6. Sesquialtera
7. Mixture
8. Trumpet
9. Pedal Pipes

CHOIR ORGAN.
1. Open Diapason
2. Stopped ditto (Treble)
3. Ditto ditto (Bass)
4. Viol da Gamba
5. Principal
6. Bassoon

SWELL ORGAN.
Down to FF
1. Bourdon
2. Tenoroon
3. Open Diapason
4. Claribella
5. Stopped Diapason (Bass)
6. Flageolet
7. Principal
8. Fifteenth
9. Sesquialtera
10. Mixture
11. Corno (Basso)
12. Cornopean
13. Clarion
14. Hautboy

SOLO ORGAN.
1. Open Diapason
2. Stopped ditto
3. Flute
4. Cromorne

PEDAL ORGAN.
1. Open pipes to FFF, 12 feet

COUPLERS.
1. Pedals to Great
2. Ditto to Choir
3. Swell to Great
4. Swell to Choir (Octave below)

Chapel Royal, Hampton Court.

The organ in this chapel was built by Father Schmidt. In 1844, a new swell and bellows were added by Hill, who has since added the pedal pipes, also a cremona to the choir organ. It has 3 rows of keys, and 20 sounding stops. The wood pipes are very good, which the mellowing hand of time has accomplished.

GREAT ORGAN.
1. Open Diapason
2. Stopped ditto
3. Principal
4. Flute (Quintaton)
5. Twelfth
6. Fifteenth
7. Sesquialtera, 3 ranks
8. Cornet 3 ditto
9. Trumpet (throughout)

CHOIR ORGAN.
1. Stopped Diapason
2. Flute
3. Principal
4. Fifteenth
5. Cremona

SWELL ORGAN.
3 Octaves—F to F
1. Open Diapason
2. Stopped ditto
3. Principal
4. Hautboy
5. Trumpet

PEDAL ORGAN.
1. From CCC to Gamut G, 16 feet; repeating on lowest half octave of Pedals

COUPLERS.
1. Swell to Great
2. Great to Pedal
3. Choir to Pedal

St. George's Chapel, Windsor.

The original organ built by Father Schmidt was afterwards replaced by a new one built by Green, which was opened on Sunday, October 17, 1790. Since then considerable additions have been made to it by Messrs. Gray and Davison, who added the double diapason pedal pipes, 6 new stops, and extended the swell down to FF. In 1856, it was rebuilt by Messrs. Gray and Davison, retaining the old compass, FFF to F, which Dr. Elvey, the organist, considers more appropriate for the performance of *cathedral music* than the modern CCC organs. The following is a list of the stops.

GREAT ORGAN.
FFF to F

1. Open Diapason, Nave Front
2. Open Diapason, Choir Front
3. Stopped Diapason
4. Claribella Flute
5. Principal
6. Twelfth
7. Fifteenth
8. Sesquialtera, 3 ranks
9. Mixture, 2 ranks
10. Posaune
11. Clarion

CHOIR ORGAN.
FFF to F

1. Dulciana
2. Stopped Diapason (Bass)
3. Stopped Diapason (Treble)
4. Flute
5. Principal
6. Piccolo
7. Keraulophon
8. Corno di Bassetto to CC

SWELL ORGAN.
FF to F

1. Double Diapason
2. Open Diapason
3. Stopped ditto
4. Dulciana
5. Dulciana Principal
6. Principal
7. Fifteenth
8. Sesquialtera, 3 ranks
9. Cornopean
10. Hautboy
11. Trumpet
12. Clarion

PEDAL ORGAN.
Two octaves from FFF

1. Double Open Diapason, from FFFF
2. Bourdon
3. Principal
4. Trombone

COUPLERS.

1. Swell to Great
2. Swell to Choir
3. Choir Sub-Octave to Great
4. Great to Pedals
5. Choir to ditto
6. Swell to ditto

St. George's Hall, Windsor Castle.

This organ was built by Messrs. Hill and Co. It contains 29 sounding stops, 2 complete manuals, and an

independent pedal of 8 stops. It has, also, two sets of movements, draw-stops, claviers, &c. so that it can be used in the Chapel as well as the Hall.

GREAT ORGAN.
CC to F in alt.

	FEET.
1. Double Open and Bourden	16
2. Open Diapason	8
3. Cone Gamba	8
4. Stopped Diapason, 8 ft. tone	
5. Quint	5⅓
6. Principal	4
7. Flute	4
8. Twelfth	2⅔
9. Fifteenth	2
10. Sesquialtera, 3 ranks	
11. Posaune	8
12. Clarion	4

CHOIR ORGAN.

1. Open Diapason throughout	8
2. Clarabella & Stopped (Bass)	8
3. Salicional to Tenor C	8
4. Gemshorn	4
5. Flute	4
6. Cromorne, 8 feet tone	

SWELL ORGAN.
CC to F in alt.

	FEET.
1. Double Diapason	16
2. Open ditto	8
3. Stopped ditto, 8 feet tone	
4. Principal	4
5. Fifteenth	2
6. Sesquialtera, 2 ranks	
7. Cornopean	8
8. Oboe	8

PEDAL ORGAN.
CCC to Tenor D

1. Open Diapason	16
2. Trombone	16
3. Principal	8

ACCESSORY STOPS, ETC.

1. Swell to Great
2. Great to Pedal
3. Swell to Pedal

CATHEDRAL AND COLLEGIATE CHURCH ORGANS IN ENGLAND AND WALES.

Canterbury Cathedral.

It is not known who was the original builder of the organ in Canterbury Cathedral; but it was rebuilt by Samuel Green in 1784, who put in new diapasons and enlarged the scale of the pipes. It was removed in 1827 from above the screen, by Longhurst, Sen. In 1842, Mr. Hill enlarged the organ, by putting in new keys and a long movement of upwards of 90 feet; he also rebuilt the swell

organ and extended the compass to Tenor C. The organist now sits in the choir behind the Decani Lay Clerks. The organ, which is placed over the south aisle, has 3 sets of keys, compass from GG to E, and 2 octaves of pedals, and 1 octave of pedal pipes from CCC to CC.

GREAT ORGAN.

1. Open Diapason
2. Ditto ditto
3. Stopped ditto
4. Claribella (Treble) in place of 5 rank Cornet
5. Principal
6. Fifteenth
7. Twelfth
8. Sesquialtera, 3 ranks
9. Mixture
10. Trumpet (Treble) in place of Tierce
11. Great Trumpet (throughout)
12. Clarion (ditto)

CHOIR ORGAN.

1. Stopped Diapason
2. Dulciana
3. Stopped Flute
4. Open ditto
5. Principal
6. Cremona

SWELL ORGAN.

1. Stopped Diapason
2. Double Open Diapason
3. Unison Open ditto
4. Principal
5. Fifteenth
6. Twelfth
7. Sesquialtera, 3 ranks
8. Cornopean
9. Trumpet
10. Hautboy

PEDAL ORGAN.

1. Open Diapason (wood)
2. Stopped ditto (ditto)

COUPLERS.

1. Swell to Great
2. Pedals to ditto
3. Ditto to Choir

St. Paul's Cathedral.

THE TRANSEPT ORGAN.

This instrument, which is the largest and most complete organ in London, was erected by Messrs. Hill and Co. in 1853 for the Panopticon in Leicester Square, and upon the sale of the effects of that establishment was purchased by the Dean and Chapter of St. Paul's in 1860, and re-erected by the builders in the south transept. This organ far surpasses in size, tone, and comprehensiveness, every organ in the metropolis. It consists of 4 manuals, each from CC to A in alt. and a pedal organ from CCC to F, 30 notes. It contains 60 sounding stops, 7 couplers, 10 composition pedals, 1 crescendo pedal, and 4004 pipes. There are 7

bellows of different pressures, which were originally worked by steam power, but now by *eight* men. The swell, choir, and solo organs have duplicate manuals, so that, when necessary, several performers can play on the instrument together. Several improvements have been introduced, amongst which is the adaptation of the pneumatic arrangements to the draw-stops, as well as to the manuals, and a pedal for first drawing out the stops one by one, in gradual succession, and afterwards of reducing them in a similar manner, so as to produce a perfect crescendo and diminuendo. The powerful reed stops (Tuba) are placed in a horizontal position, to the great advantage of their tone and appearance. This modification, a peculiar feature in the Spanish organs, is now for the first time introduced into this country. All the stops extend throughout the manuals, with the exception of the *Vox Angelica* in the solo organ, which only goes to tenor C. The equal temperament system of tuning is adopted. The dimensions are, in feet—width, 86; height, 48; and depth, 28. The following is a list of the stops, &c.

GREAT ORGAN.	FEET.
1. Double Open Diapason metal and wood	16
2. Open Diapason .....metal	8
3. Open Diapason, No. 2, ditto	8
4. Stopped Diapason.....wood	8
5. Quint ....metal	6
6. Octave.....ditto	4
7. Octave Quint.....ditto	3
8. Wald Flute ....wood	4
9. Super Octave.....metal	2
10. Sesquialtera, 3 ranks, ditto	
11. Mixture, 3 ranks.....ditto	
12. Furniture, 3 ranks ...ditto	
13. Trumpet.....ditto	16
14. Posaune .....ditto	8
15. Trumpet.....ditto	8
16. Clarion ....ditto	4

CHOIR ORGAN.	FEET.
1. Double Stopped Diapason wood	16
2. Gamba ... ...metal	8
3. Dulciana ....ditto	8
4. Stopped Diapason, metal and wood	8
5. Gemshorn ....metal	4
6. Octave Quint.....ditto	3
7. Super Octave.....ditto	2
8. Cymbal, 2 ranks ... ...ditto	
9. Stopped Flute. metal, 4 ft. tone	
10. Piccolo ....wood	2
11. { Bassoon, Bass... } ...wood / { Clarinet, Treble }	8
12. Trumpet.....metal	8

SOLO ORGAN.

		FEET.
1.	Tuba Organ. Grand Tuba Mirabilis metal	8
2.	Tuba Organ. Ditto, Clarion, ditto	4
3.	Claribel .....wood	8
4.	Harmonic Flute ... ...metal	4
5.	Flageolet ... .ditto	2
6.	Doublette, 2 ranks ...ditto	2
7.	Vox Angelica, 2 ranks, ditto	8
8.	Krum Horn ....ditto	8
9.	Vox Humana ... ...ditto	8

SWELL ORGAN.

1.	Bourdon and Double Diapason....wood and metal	16
2.	Open Diapason .....metal	8
3.	Salcional ... ...ditto	8
4.	Stopped Diapason. ....wood	8
5.	Octave.....metal	4
6.	Octave Quint .....ditto	3
7.	Super Octave.....ditto	2
8.	Sesquialtera, 5 and 4 ranks.....ditto	
9.	Suabe Flute ....wood	4
10.	Cornopean .....metal	8
11.	Trumpet ....ditto	8
12.	Hautboy .....ditto	8
13.	Clarion ... .ditto	4

PEDAL ORGAN.
CCC to F.

1.	Double Open Diapason, wood	32
2.	Open Diapason ... .ditto	16
3.	Open Diapason . .....metal	16
4.	Bourdon .. ..wood	16
5.	Octave... .....metal	8
6.	Octave Quint.....ditto	6
7.	Super Octave.....ditto	4
8.	Sesquialtera, 5 ranks, ditto	3
9.	Trombone .....ditto	16

Attached to the Pedal Organ were Kettle Drums, acted upon by a Stop, which are now taken away

COUPLERS, ETC.

1. Swell to Great
2. Choir to ditto
3. Solo to ditto
4. Pedal to ditto
5. Pedal to Choir
6. Pedal to Swell
7. Pedal to Solo

9 Composition Pedals, 2 Tremulants, a Pneumatic Lever attachment, and a Crescendo and Diminuendo Pedal

NUMBER OF STOPS.

Great Organ	16
Choir ditto	12
Swell ditto	13
Solo ditto	9
Pedal ditto	10
	60
Couplers.....	7
Total...	67

NUMBER OF PIPES.

Great Organ 1276	
Choir ditto.....	754
Swell ditto.....	932
Solo ditto.....	626
Pedal ditto.....	416
Total...	4004

THE CHANCEL ORGAN.

This organ, built by Father Schmidt, was erected in 1694, and opened December 2nd, 1697, before the cathedral was finished. It originally consisted of a "Great and Choir Organ," the former ranging from CCC (16 feet compass) to C in Alt.; the latter descending to FFF (the 12 feet compass). A swell (which went down only to tenor C) was subsequently

added by Crang, soon after swells were invented, which is said to be the first swell made in this country. The organ was repaired at the beginning of the present century by Messrs. Orchman and Nutt, at which time every pipe was transposed, to suit the then concert pitch, so that the DDD was formerly CCC, and so on all through the organ, which was not for the better. In 1826, considerable alterations were made by the late Mr. Bishop, who extended the manuals up to F in alt.; introduced a clarion in place of the nason in the great organ; put in a claribella in lieu of the stopped diapason treble; placed a second trumpet treble on the cornet slider, and put new trebles to the chorus stops. In the choir organ, Bishop substituted a dulciana and an open diapason for the vox humana and 3 rank mixture; and added an octave of large pedal pipes, as well as horizontal bellows in place of the four diagonal bellows, 8 feet by 4, by which the organ had previously been supplied. He also introduced the concussion valves in this organ, for the first time, which secures the steadiness of the wind, which had never been done before. In 1849, Mr. Bishop put in a new swell, to gamut G (5½ feet compass), the available room within the case neither allowing of the adoption of a more complete compass, nor of the introduction of any double stops. At the same time Bishop substituted a viol di gamba for the metal flute in the choir organ, and a claribella for the stopped diapason, and also put in new keys and pedals. The organ originally stood over the screen at the entrance of the choir at St. Paul's. When the screen was about to be removed, it was taken down by Hill and Son, in 1860, and erected by them under one of the arches on the north side of the choir, the keys being placed in the stalls. The alterations then made proved generally so unsatisfactory,

that it was resolved to rebuild the organ from its foundation, Mr. Henry Willis being entrusted with the work, which has given great satisfaction to Mr. John Goss, the organist, who considers it vastly improved in tone and touch; the action of the draw-stops being most luxuriously easy.

The following is a list of the stops as the organ stands at the present time.

GREAT ORGAN.
CCC to F.

	FEET.
1. Double Diapason (prepared for)	16
2. Open Diapason	8
3. Open Diapason	8
4. Stopped Diapason	8
5. Principal	4
6. Harmonic Flute (prepared for)	4
7. Twelfth	3
8. Fifteenth	2
9. Harmonic Piccolo (prepared for)	2
10. Sesquialtera, 3 ranks	
11. Mixture, 3 ranks	
12. Orchestral Hautboy (prepared for)	8
13. Posaune	8
14. Trumpet (prepared for)	8
15. Another Reed (prepared for)	8
16. Clarion	4

CHOIR ORGAN.
FFF to E.

1. Open Diapason (from gamut G)	8
2. Viol d'Amore (from gamut G)	8
3. Dulciana (ditto)	8
4. Stopped Diapason	8
5. Harmonic Flute	4
6. Principal	4
7. Fifteenth	2
8. Clarinet	8

SWELL ORGAN.
CC to F.

1. Double Diapason	16
2. Open Diapason	8
3. Stopped Diapason	8
4. Principal	4
5. Sesquialtera, 3 ranks	
6. Horn	8
7. Trumpet	8
8. Hautboy	8

PEDAL ORGAN.
CCC to F.

1. Open Diapason	16
2. Violone	16

COUPLERS.

1. Swell to Great, Super Octave
2. Swell to Great, Unison
3. Swell to Great, Sub Octave
4. Swell to Choir
5. Choir to Great
6. Swell to Pedals
7. Great to Pedals, 16 feet
8. Great to Pedals, 8 feet
9. Choir to Pedals

The pneumatic lever is applied to the great organ manuals, and the great and swell, and the great and choir couplers act without adding weight to the touch.

The patent pneumatic combination movement for the hands, is applied to the stops of the great and swell organs. Those for the great organ are also acted upon by pedals.

The pressure of air (which had been reduced half an inch, when the organ was removed from the screen) has been restored to 3 inches on the flute work, and augmented to 5 inches upon the reed work of the great and swell organs.

The swell reeds originally constructed by Bishop have been revoiced upon this pressure, and the reeds of the great organ are quite new; as are the *viol d'amore* and *flûte-harmonique*, which have been substituted by Mr. Willis for the choir twelfth and flute. Mr. Willis has also substituted new metal pipes below gamut G, for the wooden ones which Messrs. Hill had used in carrying down the open diapason in the swell. The whole organ has been revoiced by Mr. Willis.

St. Peter's, Westminster Abbey.

The present organ in Westminster Abbey was originally built, in 1730, by Schreider and Jordan. It then consisted of great and choir, ranging from GG (10⅔ feet compass) up to D in alt. and a swell, with 4 unison stops, to fiddle G (2⅔ feet compass). A pedal board from GG to gamut A, with an octave of unison open pipes, were added by Avery during the time Dr. Cooke was organist.

In 1828, an octave of GGG pedal pipes, and a new (soft) trumpet and clarion, in place of the old reeds, were introduced by Elliott. Subsequently, a new swell to tenor C, with 8 stops, was added by Hill; and a dulciana and open diapason put into the choir organ, in place of the fifteenth and cremona. In 1848, the organ was entirely reconstructed by Mr. Hill, and divided—the great organ, with new and larger sound-boards, movements, &c. being placed on the south side of the screen, and the swell on the north; leaving the centre unoccupied, so that an uninterrupted view of the

upper part of the Minster may be obtained from one end to the other.

The choir organ remains in its old place, over the doorway leading from the nave into the choir, and the 32 feet pedal diapasons are laid horizontally along the screen. The claviers are placed, crossways, behind the choir organ.

The alterations in 1848 comprised an extension of the great organ down to CCC (16 feet compass), with the addition of a new open diapason; the conversion of one of the old diapasons into a double; the insertion of a quint, a posaune, and 3 additional ranks of mixture. The compass was also extended up to F in alt. An entirely new swell to CC (8 feet compass) was introduced; a hohl flute and cromorne added to the choir, and 2 open diapasons, 16 and 32 feet, appropriated to the pedal—such of the old pedal pipes as were available being used in the latter. The following is a list of the stops.

GREAT ORGAN.
From CCC to F, 66 Notes.
1. Double Diapason to CC
2. Open ditto to CC
3. Open ditto throughout
4. Stopped ditto ditto
5. Quint to CC
6. Principal throughout
7. Twelfth ditto
8. Fifteenth ditto
9. Stopped Flute to CC
10. Sesquialtera, 5 ranks throughout
11. Mixture, 3 ranks throughout
12. Double Trumpet to CC
13. Posaune to CCC
14. Clarion throughout

CHOIR ORGAN.
From GG to F in alt. 59 Notes.
1. Open Diapason to Gamut G
2. Stopped ditto
3. Principal
4. Hohl Flute
5. Stopped ditto
6. Cromorne

SWELL ORGAN.
From CC to F in alt. 54 Notes.
1. Double Diapason
2. Open ditto
3. Stopped ditto
4. Principal
5. Fifteenth
6. Sesquialtera, 3 ranks
7. Contra Fagotta to Tenor C
8. Cornopean
9. Hautboy
10. Clarion

PEDAL ORGAN.
CCC to D, 27 Notes.
Two Octaves and 2 Notes.
1. Great Open Wood Diapason, 32 feet
2. Ditto ditto 16 feet

COUPLERS.
1. Swell to Great
2. Great to Pedals, 16 feet pitch
3. Ditto ditto 8 ditto
4. Choir to ditto 16 ditto
5. Swell to ditto 8 ditto

There are 3 Composition Pedals

Bangor Cathedral.

This organ was built by Samuel Green in 1779. No alterations or improvements have been made, except a few pedals which pull down the keys of great organ, which were added by Bucher and Fleetwood, of Liverpool, in 1826.

GREAT ORGAN.
1. Open Diapason
2. Stopped ditto
3. Principal
4. Fifteenth
5. Sesquialtera (Treble)
6. Ditto (Bass)

And a *Trumpet*, but not in use for want of proper pipes. It is said that a tramping tuner took the original metal pipes away, and substituted wooden ones, which soon got out of order. This occurred before the time that the late Dr. Pring was organist.

CHOIR ORGAN.
1. Stopped Diapason
2. Principal
3. Dulciana

SWELL ORGAN.
1. Open Diapason
2. Stopped ditto
3. Principal
4. Hautboy
5. Cornet

It may not be uninteresting to name that the following records remain of former Organists of Bangor Cnthedral:

Thomas Bolton, Organist of Bangor, died 1st of January, 1644. On a tombstone in the North Transept of the Cathedral is the following:—"Here lies, in the hopes of a joyful Resurrection, the body of Thomas Roberts, the first *endowed* Organist of this Cathedral *since* the Restauration, who died on the 18th of May, in the year of our Lord 1705, and the 48th year of his age"—supposed to have been held by him 20 years. Mr. Olive was elected Organist in 1784, with a salary of £50 per annum, and resigned in favour of his relative, Dr. Joseph Pring, who was elected Organist, April 1st, 1793, being at that time 17 years of age.

Carlisle Cathedral.

This organ was built by Mr. Willis in 1856, from a specification prepared by Mr. Ford, the organist, and Mr.

W. T. Best of Liverpool. The compass is 4 octaves and a half, from CC to G in alt. It has a pedal board containing 30 notes, or 2 octaves and a half from CCC to F, and all the registers extend throughout the compass of the key boards, without exception.

GREAT ORGAN.

		FEET.
1.	Double Open Diapason metal	16
2.	Open Diapason ditto	8
3.	Stopped Diapason wood	8
4.	Principal metal	4
5.	Twelfth ditto	3
6.	Fifteenth ditto	2
7.	Sesquialtera, 5 ranks, ditto	
8.	Furniture, 3 ranks ditto	
9.	Trombone ditto	8
10.	Trumpet ditto	8
11.	Clarion ditto	4

CHOIR ORGAN.

1.	Open Diapason metal	8
2.	Claribella wood	8
3.	Dulciana metal	8
4.	Gamba ditto	8
5.	Harmonic Flute ditto	4
6.	Clarionette ditto	8

SWELL ORGAN.

1.	Double Dulciana metal	16
2.	Open Diapason ditto	8
3.	Stopped ditto wood	8
4.	Principal metal	4
5.	Flageolet wood	2
6.	Echo Cornet, 5 ranks, the lowest rank of wood, the remaining 4 of metal	
7.	Contra Fagotto wood	16
8.	Horn metal	8
9.	Oboe ditto	8
10.	Clarion ditto	4
11.	Vox Humana ditto	8

Also a Tremu'ant of an improved modern construction as patented by Mr. Willis

PEDAL ORGAN.

		FEET.
1.	Open Diapason wood	16
2.	Violone metal	16
3.	Bourdon wood	16
4.	Principal metal	8
5.	Fifteenth ditto	4
6.	Trombone ditto	16
7.	Trumpet ditto	8

COUPLERS.

1. Swell to Great
2. Choir to ditto
3. Pedal to ditto
4. Pedal to Swell
5. Pedal to Choir

SUMMARY.

NUMBER OF REGISTERS.

Great Organ	11
Swell ditto	11
Choir ditto	6
Pedal ditto	7
	35

NUMBER OF PIPES.

Great Organ	952
Swell ditto	840
Choir ditto	336
Pedal ditto	210
Total...	2338

Chester Cathedral.

This organ was built by Messrs. Gray and Davison, in 1844, and is a very fine one. It contains 36 sounding stops.

GREAT ORGAN.
CC to F.

1. Double Diapason
2. Open ditto
3. Ditto ditto
4. Stopped ditto
5. Fifth stopped
6. Principal
7. Flute
8. Twelfth
9. Fifteenth
10. Sesquialtera, 3 ranks
11. Furniture 2 ditto
12. Mixture 2 ditto
13. Trumpet
14. Clarion

CHOIR ORGAN.
GG to F.

1. Open Diapason
2. Dulciana
3. Stopped Diapason
4. Principal
5. Flute
6. Fifteenth
7. Clarionet

SWELL ORGAN.
FF to F.

1. Double Diapason
2. Open ditto
3. Stopped ditto
4. Principal
5. Fifteenth
6. Sesquialtera, 3 ranks
7. Hautboy
8. Cornopean
9. Clarion

PEDAL ORGAN.
CCC to D.

1. Open Diapason, 16 feet
2. Stopped ditto 16 feet
3. Principal 8 feet
4. Fifteenth 4 feet
5. Tierce 3⅕ feet
6. Sesquialtera, 3 ranks

COUPLERS.

1. Swell to Great
2. Ditto to Choir
3. Choir to Great
4. Great to Pedals
5. Choir to Pedals

Chichester Cathedral.

The organ in Chichester Cathedral was built by Renatus Harris, in 1678, and originally had but 1 manual; no pedals; only 1 open diapason, which stood in the west front of the case, diapered and gilded; and no reed stop. In 1725, Byfield added the choir organ, and put a trumpet stop in the great organ. In 1778, the east front open diapason was added by Thomas Knight, who also added the swell. In 1808, England considerably improved the organ, by introducing new and larger sound boards; at the same time making great and choir manuals long octaves; putting a 2 rank mixture into the great organ; placing a hautboy in the room of the swell trumpet, and a dulciana to gamut G, in lieu of the choir cremona. The old pipes were at the same time rounded out and repaired. For these repairs

and improvements, England received 200 guineas. A pedal clavier, of the compass GG to tenor C, was also laid down by England, acting on the bass keys of the great manuals. In 1829, Pilcher added a set of unison pedal pipes from FFF to tenor C, and placed a claribella in the swell in the room of the 4 rank cornet. He also put in a new horizontal bellows, using the old diagonals as the 2 feeders, and also regilt the choir front pipes. The cost was about £100. In 1844, a set of double open pedal pipes from FFFF to CC, and a separate bellows, were added by Gray and Davison; the largest pipes being laid horizontally at the back of the organ, in the organ loft. The swell clavier was at the same time extended to GG, communicating with, and pulling down the corresponding keys of the choir organ; a claribella stop was inserted in place of the 5 rank cornet in the great organ; a cremona was put into the choir; a coupler, swell to great, was applied; also two composition pedals; and the whole of the pipes were repaired, and many improved. The cost was £218. In 1851, the present swell of 8 stops was added by Hill, and the organ now contains the following stops.

GREAT ORGAN.

1. Open Diapason, Front
2. Ditto ditto Back
3. Stopped ditto
4. Claribella, in place of 5 rank Cornet
5. Principal
6. Twelfth
7. Fifteenth
8. Sesquialtera, 3 ranks
9. Mixture, 2 ranks
10. Trumpet, draws in halves

CHOIR ORGAN.

1. Dulciana to Gamut G
2. Stopped Diapason
3. Principal
4. Flute
5. Fifteenth
6. Cremona to Fiddle G

SWELL ORGAN.

1. Double Diapason
2. Open ditto
3. Stopped ditto
4. Principal
5. Fifteenth
6. Sesquialtera, 3 ranks
7. Hautboy
8. Cornopean

PEDAL ORGAN.

1. Great Open Bass to FFFF, 24 ft.
2. Open Diapason to FFF, 12 feet

ACCESSORY STOPS, ETC.	COMPASS.
1. Swell to Great	Great, GG to D in alt.
2. Great to Pedals	Choir, GG to D in alt.
3. Choir to Pedals	Swell, Tenor C to D in alt.
4, 5. Two Composition Pedals	Swell Clavier, GG to D in alt.
	Pedal, FFF to Tenor C, 20 Notes

Durham Cathedral.

The organ in Durham Cathedral was built by Father Schmidt, in 1684-5, and, as left by him, had 1068 pipes. For its construction he received £700, and the materials of the old organ.* It was repaired by Abraham Jordan, in 1748, who is supposed to have added the swell. The painting and gilding of the pipes cost, in addition, £50. In 1815, Mr. England repaired the organ; and it was completed by his son-in-law, Nicholls. He added a principal and cornet to the swell, a cremona to the choir organ, new keys, and extended the compass by 2 notes in the treble; he also added 17 dwarf pedal pipes, and 17 pedals. It was again repaired by Mr. Buckingham, in 1823; and in 1840 he put in a Venetian swell movement, new bellows, and a coupler movement. In 1844, Mr. Bishop made considerable alterations to the organ, by extending the compass of the swell to C in the bass, and placing a clarion in room of the cornet. He also added the composition pedals, a new sesquialtera, mixture, twelfth, and tierce; a new stopped diapason and dulciana in the choir organ; a claribella to great organ in place of the cornet; double pedal pipes, and two octaves of German pedals. And, in 1847, Mr. Bishop moved the organ to its present site, on the north side of the choir, when he put a new hautboy stop in the swell.

* By this it would appear that the ancient organ in Durham Cathedral was not destroyed during the time of the troubles in 1644 and 1646.

Great case, 18 feet 6 inches wide by 4 feet 8 inches deep, and about 82 feet high; choir case, 9 feet wide by 8 feet deep.

GREAT ORGAN.

	FEET.
1. Open Diapason	8
2. Ditto ditto	8
3. Stopped ditto, 8 feet tone	
4. Claribella to Tenor C	8
5. Principal	4
6. Flute (wood), 4 feet tone	
7. Twelfth	3
8. Fifteenth	2
9. Sesquialtera, 3 ranks	
10. Mixture, 2 ranks	
11. Tierce	
12. Trumpet	

SWELL ORGAN.

1. Open Diapason	8
2. Stopped ditto, 8 feet tone	
3. Principal	4
4. Trumpet	8
5. Hautboy	8
6. Clarion	4

CHOIR ORGAN.

1. Open Diapason, to Tenor C	8
2. Stopped ditto, 8 feet tone	
3. Dulciana	8
4. Vlol di Gamba to Tenor C	8
5. Principal	4
6. Dulciana Principal	4
7. Flute metal	4
8. Fifteenth	2
9. Cremona to Tenor C	8

PEDAL ORGAN.

Open Diapason wood	21

COUPLERS.

1. Swell to Great
2. Ditto to Choir
3. Choir to Great, Sub Octave
4. Great to Pedals
5. Great to Pedals, Octave
6. Choir to Pedals
7. Ditto ditto, Octave
8. Swell to Pedals

COMPASS.

Great, GG to E 3 in alt.
Choir, GG to E 3 in alt.
Swell, Gamut G to E 3 in alt.
Pedals, GGG to G, 2 Octaves

Ely Cathedral.

This organ, erected by Hill in 1851, is placed in the triforium, and projects out from the arches about six feet. The keys are placed in a stone gallery, behind the top of the stalls, and communicate with the organ by means of a long movement. The case is of handsome oak, made according to a design prepared by Mr. Scott.

GREAT ORGAN.
CC to F in alt.

	FEET.
1. Double Diapason	16
2. Open ditto	8
3. Open ditto	8
4. Stopped ditto	8
5. Quint	6
6. Octave	4
7. Octave Quint	3
8. Super Octave	2
9. Sesquialtera, 3 ranks	
10. Mixture, 3 ranks	
11. Posaune	8
12. Trumpet	8
13. Clarion	4

CHOIR ORGAN.
CC to F in alt.

	FEET.
1. Open Diapason	8
2. Claribella, throughout	8
3. Stopped Diapason	8
4. Octave	4
5. Flute	4
6. Super Octave	2
7. Cremona	8

SWELL ORGAN.
To Tenor C

1. Double Diapason	16
2. Open ditto	8
3. Stopped ditto	8
4. Octave	4
5. Trumpet	8
6. Hautboy	8

PEDAL ORGAN.
CCC to D, 27 Notes.

	FEET.
1. Open Diapason ....wood	16
2. Ditto ditto ....metal	16
3. Octave	8
4. Super Octave	4
5. Sesquialtera, 3 ranks	
6. Trombone	16

COUPLERS.

1. Swell to Great
2. Choir to ditto
3. Pedals to ditto
4. Ditto to Choir

3 Composition Pedals

Bristol Cathedral.

The old organ was built by Renatus Harris in 1685. Upon its removal (on the rebuilding of the present organ) it was found to be completely worn out and worm eaten.

Upon the restoration of the cathedral, the present organ was erected in the north aisle. The inside wood work was entirely renewed. The wood pipes were retained, as also the front pipes, which are of pure tin, and formed the two open diapasons of the great organ from GG to middle C, and the lowest octave of the two principals. With the exception of the above, and the trumpet and clarion of the great organ, the whole of the other part was renewed, but the old metal was used as far as possible. The whole of the metal pipes are spotted metal.

The present organ was rebuilt by Mr. W. G. Vowles, of Bristol, in 1861.

GREAT ORGAN.
GG to G.

1. Open Diapason (Large Scale)
2. Ditto ditto (Small ditto)
3. Claribella to Gamut G
4. Stopped Diapason
5. Principal
6. Principal
7. Twelfth
8. Fifteenth
9. Sesquialtera, 4 ranks
10. Mixture, 2 ranks
11. Trumpet
12. Clarion

CHOIR ORGAN.
GG to G.

1. Stopped Diapason
2. Dulciana to Gamut G
3. Viol da Gamba to Gamut G
4. Flute
5. Principal
6. Piccolo (wood)
7. Cremona to Tenor C

SWELL ORGAN.
Gamut G to G.

1. Double Dulciana
2. Open Diapason
3. Stopped ditto
4. Harmonic Flute
5. Principal
6. Twelfth
7. Fifteenth
8. Mixture, 2 ranks
9. Cornopean
10. Trumpet
11. Hautboy

PEDAL ORGAN.
CCC to F.

1. Open Diapason (wood)
2. Bourdon (wood)
3. Principal (metal)

COUPLERS.

1. Swell to Choir
2. Swell to Great, Unison
3. Swell to Great, Octaves
4. Pedals to Choir
5. Pedals to Great, Unison
6. Pedals to Great, Octaves
7. Pedal Organ in Octaves

COMPOSITION PEDALS.

3 to the Great Organ
3 to the Swell ditto
2 acting on the Couplers and Pedal Organ Draw-Stops

The swell of this organ is very effective.

The old case, which is very richly carved (said to be done by Grinling Gibbons), has been carefully preserved and adapted to the enlarged instrument. The choir organ case, at the back of the organist, is entirely new, and being of Gothic design, contrasts strangely with the old organ case.

Exeter Cathedral.

The organ in this cathedral, which was built by John Loosemore in 1665, who lies buried in the south transept of the cathedral, is the oldest cathedral organ in this country.*

* The following is a record of the fate of the ancient organ in Exeter Cathedral (before Loosemore's), during the time of the troubles in 1642-3: "They [the Parliamentary soldiers] brake down the organs, and taking two or three hundred pipes with them, in a most scornful, contemptuous manner, went up and down the street, piping with them; and meeting with some of the choristers of the church, whose surplices they had stolen before, and employed them to base, servile offices, scoffingly told them, *Boys, we have spoil'd your trade, you must go and sing hot pudding pyes.*"—*Mercurius Rusticus*, 1685, p. 160. In 1644, all organs were ordered to be taken down and destroyed.

On the east front of the case along the impost is the following inscription: "*John Loosemore made this organ*, 1665." Since the erection, in the above year, it has undergone various alterations and additions, by Schrider, Jordan, Michau, Robson, Lincoln, and others, and lastly from Gray.

In taking the old work to pieces in 1859, it was evident that different hands had been employed upon it at different periods. The swell and the treble of the double diapasons were added by Jordan, Bridge, and Byfield, in the latter half of the last century; the dulciana was introduced by Lincoln; and the lower part of the swell, as well as some of the pedal pipes, by Gray.

It was at first intended in 1859, merely to remove the keys, etc. from their old position between the great and choir organs to the south side of the case, so that the organist might be able to hear the voices, whether they were in the choir or in the nave; but on examining the old work, it was seen that this could not be done without having entirely new mechanism. This being so, it was thought a pity to let the opportunity slip of effecting a re-arrangement of some parts, by which greater completeness would be given to the whole instrument. The chief alteration was in the double diapason. As it then stood, the lowest 15 notes were produced by open pipes, each of which had an octave *helper;* the remaining portion of the stop consisting of stopped pipes. The lower two octaves had at some period been disconnected from the manuals, and were exclusively played by the pedals —a very unsatisfactory arrangement.

By making use of a tower of 7 open pipes *which stood in the case, and had never been used*, and by making the 15 lower ones, mentioned above, speak *without their helpers*, and by putting the helpers where wanted, to speak their own pitch,

a scale of 3 octaves of open double pipes was obtained, minus 2 semitones; viz. from GGG to F, except GGG♯, there being no pipe available for this note, and no room in the case to put a new one; moreover, there was no GG♯ in the rest of the organ. The stopped pipes to CC were then carried down, so that a complete range of stopped doubles from CC upwards was obtained on the great manuals. The *open* doubles were placed exclusively on the pedals, and by a mechanical contrivance they may be used either as 32 feet pipes from GGG, or as 16 feet pipes from CC, or may be used both together. The 2½ octaves of the stopped pipes may also be used separately on the pedals, thus forming a bourdon 16 feet pedal stop.

The pedal board, on the radiating and concave principle, of 2½ octaves, extends from C to F, and can be coupled to the great organ, either in unison from CC upwards, or in octaves from GGG, the notes below repeating. The other alterations consist of a new great trumpet, a new hautboy in the swell, the substitution of a claribella in the great organ for the old mounted cornet, and a new bellows. The work was admirably done by Mr. Henry Willis.

GREAT ORGAN.

1. Double Diapason
2. Open ditto
3. Ditto ditto
4. Stopped ditto
5. Principal
6. Twelfth
7. Fifteenth
8. Sesquialtera, 5 ranks
9. Clarion
10. Trumpet
11. Claribella

CHOIR ORGAN.

1. Stopped Diapason
2. Dulciana
3. Principal
4. Flute
5. Cremona

SWELL ORGAN.

Compass from Gamut G to F in alt.

1. Open Diapason
2. Stopped ditto
3. Principal
4. Sesquialtera
5. Hautboy
6. Trumpet

2½ Octaves of Pedals, from C to F, 30 Notes

4 Composition Pedals

COUPLERS.

1. Swell to Great
2. Swell to Choir
3. Pedals to Great
4. Pedals to Choir
5. Octave Pedal

Gloucester Cathedral.

This organ, which was erected in the reign of King Charles the Second, was originally built by the elder Harris, in conjunction with his son Renatus, in the year 1670. It was considerably enlarged in 1847, by Henry Willis, of London, who added a swell of 12 stops, all of which are entirely new (with its movement), excepting some old pipes which were derived from the old twelfth in the great organ and the old swell. The continuation of the great organ from GG to CCC, and the entire re-arrangement of the pedals and mechanism, including new couplers, etc. and the addition of a mixture and clarion to the great organ, are also by Willis.

GREAT ORGAN.

1. Open Diapason
2. Ditto ditto
3. Stopped ditto
4. Claribella
5. Principal
6. Twelfth
7. Fifteenth
8. Sesquialtera, 4 ranks
9. Mixture 2 ditto
10. Trumpet
11. Clarion

CHOIR ORGAN.

1. Stopped Diapason
2. Dulciana
3. Principal
4. Flute (metal)
5. Flute (wood)

(Changed from the Twelfth in the Swell)

SWELL ORGAN.

1. Open Diapason
2. Ditto ditto
3. Stopped ditto
4. Dulciana
5. Principal
6. Twelfth

(Changed from the Fifteenth in the Choir)

7. Fifteenth
8. Sesquialtera
9. Trumpet
10. Hautboy
11. Cremona
12. Clarion

PEDAL ORGAN.

1. Open Diapason

Hereford Cathedral.

The cathedral organ, which was originally erected by Renatus Harris in 1686, and in which improvements were made by Lincoln during the last century, and about thirty years ago by Bishop, under the superintendence of Dr. Wesley, then organist of the cathedral, was, at the com-

mencement of the restoration in 1841, taken down from its position over the choir screen of that period, and removed for security's sake to the college. It was temporarily re-erected under the easternmost arch of the north aisle of the nave in 1849, under the superintendence of the present organist, Mr. G. Townshend Smith, at a cost of £420.

Since the close of 1862, it has undergone a number of alterations and additions, amounting to an entire remodeling, at the hands of Messrs. Gray and Davison. In fact, it may be described as a new instrument, rather than a restored organ, although such of the old pipes as were in good condition, having been revoiced, are again used.

The site selected is underneath the westernmost arch of the south aisle of the choir, the swell being in the triforium, and the bellows, erected in a framework of wood, in the passage leading to the robing room.

The pneumatic action, for lightening the touch, etc. is applied to the great organ and its couplers, also to the whole of the draw stop and composition action throughout. It is intended to blow the instrument by hydraulic power, but at present three handles are used for the purpose. The pipes of the pedal violone (some of the largest in England) are placed in front, and from their great height, as well as from their elaborate decorations, designed by Mr. Scott, present a most imposing appearance. There are no fewer than 2,230 pipes in the organ.

GREAT ORGAN.	FEET.
1. Bourdon	16
2. Open Diapason	8
3. Stopped ditto	8
4. Principal	4
5. Twelfth	
6. Tierce	
7. Furniture, 4 ranks	
8. Trumpet	8
9. Gamba	
10. Open Diapason	8
11. Claribella	8
12. Principal ..... metal	4
13. Fifteenth	
14. Larigot	
15. Mixture, 2 ranks	
16. Clarion	4

CHOIR ORGAN.

1. Stopped Diapason
2. Principal
3. Flute
4. Cremona
5. Dulciana
6. Spitzflute
7. Flageolet

SWELL ORGAN. FEET.

1. Bourdon 16
2. Keraulophon 8
3. Principal 4
4. Mixture
5. Oboe 8
6. Open Diapason 8
7. Soft ditto 8
8. Fifteenth
9. Cornopean 8
10. Clarion 4

PEDAL ORGAN.
CCC to F.

FEET.

1. Bourdon 16
2. Grand Open Diapason 16
3. Fifteenth 4
4. Trumpet 8
5. Violone .....metal 16
6. Principal 8
7. Trombone 16

COUPLERS.

1. Pedals to Swell
2. Ditto to Choir
3. Swell to Choir
4. Pedals to Great
5. Swell to Great

Total—45 Stops
There are 6 Composition Pedals

Lichfield Cathedral.

The old organ now removed was erected by Samuel Green in 1789. In 1860 the present organ was erected by Mr. G. M. Holditch. It was a present from J. Spode, Esq. of Hawkesyard Park, in the county of Stafford.

The organ consists of three whole rows of keys, and a large independent pedal organ. The compass of the manuals is from CC to F in alt.

GREAT ORGAN.

FEET. PIPES.

16. Sub Bass 12
16. Tenoroon 42
8. Open Diapason 54
8. Ditto ditto 42
8. Ditto ditto Bass 12
8. Bell Gamba 42
8. Claribella 54
8. Stopped Diapason 54
4. Octave 54
4. Gamba Octave 54

FEET. PIPES.

4. Wald Flute 42
3. Super Quint 54
2. Super Octave 54
1⅗. Tierce 54
1½. Sesquialtera 108
2. Doublette 108
Mixture 108
8. Posaune 54
8. Clarion 54

Number of Pipes 1056

CHOIR ORGAN.

FEET.		PIPES.
8.	Dulciana	54
8.	Stopped Diapason, Bass	12
8.	Ditto ditto Treble	42
4.	Principal	54
4.	Flute	54
2.	Fifteenth	54
8.	Cremona	42
	Number of Pipes	312

SWELL ORGAN.

16.	Bourdon	12
16.	Double Diapason	42
8.	Open Diapason	42
8.	Ditto ditto Bass	12
8.	Keraulophon	42
8.	Stopped Diapason	54
4.	Principal	54
2.	Fifteenth	54
1⅗.	Tierce	54
1⅓.	Sesquialtera	108
	Mixture	108
8.	Cornopean, Bass	12
8.	Ditto Treble	42
8.	Trumpet	54
8.	Hautboy	42
16.	Tromba	42
4.	Clarion	54
	Number of Pipes	828

PEDAL ORGAN.

Compass from CCC to E.
Two octaves and a third.

32.	Double Double Open Diapason	12
16.	Double Open Diapason	29
16.	Montre	29
16.	Grand Bourdon	29
8.	Octave	29
4.	Super Octave	29
	Sesquialtera	58
	Mixture	58
16.	Grand Trombone	29
8.	Grand Trumpet	29
	Number of Pipes	311

COUPLERS.

1. Pedals to Great
2. Ditto to Swell
3. Ditto to Choir
4. Swell to Great
5. Great to Choir
6. Swell to Choir
7. Octave Coupler Pedals

NUMBER OF PIPES.

Great Organ	1056
Choir Organ	312
Swell Organ	828
Pedal Organ	311
Total number of Pipes	2507

NUMBER OF STOPS.

Great Organ	19
Choir Organ	7
Swell Organ	17
Pedal Organ	10
	53
Couplers	7
Total number of Stops	60

There are 8 Composition Pedals to change the various stops of CC

The great organ, also the pedal organ, has the pneumatic action applied. The whole organ is supplied by three pairs of bellows, with double feeders. The organ is constructed in a peculiar way, and the large 32 feet CCCC pipes are laid down, as the instrument stands in the side aisle of the transept of the cathedral, and the keys brought through the wall into the side aisle of the choir.

Lincoln Cathedral.

The organ in this cathedral was built in 1826, by W. Allen, and extended by his son, Charles Allen, in 1851.

GREAT ORGAN.

1. Open Diapason, Front
2. Ditto ditto Back
3. Stopped ditto
4. Claribella
5. Principal
6. Twelfth
7. Fifteenth
8. Cornet, Treble, 4 ranks
9. Sesquialtera, Bass, 3 ranks
10. Trumpet, Treble
11. Ditto Bass

CHOIR ORGAN.

1. Stopped Diapason
2. Dulciana
3. Viol di Gamba
4. Principal
5. Flute
6. Fifteenth

SWELL ORGAN.

1. Double Diapason
2. Open ditto
3. Stopped ditto
4. Principal
5. Flute
6. Twelfth
7. Fifteenth
8. Hautboy
9. Horn

PEDAL ORGAN.

1. Sub Bourdon, 32 feet tone
2. Open Diapason, 16 feet tone
3. Principal, 8 feet
4. Twelfth, 6 feet
5. Fifteenth, 4 feet
6. Sesquialtera, 3 ranks
7. Trombone, 16 feet

ACCESSORY STOPS, MOVEMENTS, ETC.

1. Swell to Great
2. Ditto to Choir
3. Choir to Great
4. Pedals to Great
5. Pedals to Choir

6 to 10, Five Composition Pedals

COMPASS.

Great, GG to F in alt.
Choir, GG to F in alt.
Swell, Gamut G to F in alt.
Pedal Clavier, CCC to Fiddle G
Pedal Stops, Nos. 1 and 2, CCC to Fiddle G
Pedal Stops, Nos. 3 to 7, CCC to FFF sharp, seven semitones, to meet Great Organ at GG

Manchester Cathedral.

The present organ in Manchester Cathedral was erected in the month of April, 1861, by John Nicholson, of Worcester, and is entirely new.

GREAT ORGAN.

	FEET.
1. Bourdon	16
2. Stopped Diapason	8
3. Small Open ditto	8
4. Large ditto ditto	8
5. Gamba	8
6. Stopped Flute	4
7. Gemshorn	4
8. Principal	4
9. Twelfth	3
10. Fifteenth	2
11. Tierce	
12. Larigot	
13. Mixture	
14. Full Mixture	
15. Trumpet	8
16. Clarion	4

CHOIR ORGAN.

	FEET.
1. Stopped Diapason	8
2. Viol di Gamba	8
3. Claribella	8
4. Dulciana	8
5 Gamba	4
6 Piccolo	2
7. Stopped Flute	4
8. Solo Flute	4
9. Krumhorn	8
10. Ophicleide	8

SWELL ORGAN.

1. Bourdon	16
2 Stopped Diapason	8
3. Open ditto	8
4. Stopped Flute	4
5. Gamba	8
6. Gemshorn	4
7. Fifteenth	2
8. Hautboy	8
9. Cornopean	8
10. Clarion	4
11. Sesquialtera, 3 ranks	

PEDAL ORGAN.

Two octaves and 4 notes, with radiated and concave Pedal Board.

	FEET.
1. Violone	16
2. Open Diapason	16
3. Bourdon	16
4. Principal	8
5. Trombone	16

ACCESSORY STOPS.

Swell to Great
Choir to ditto
Swell to Choir
Ditto to Pedals
Choir to ditto
Great to ditto
3 Composition Pedals to Swell
3 Ditto ditto to Great
In and out Pedals to Great
Ditto ditto to Swell

Norwich Cathedral.

The organ in Norwich Cathedral has an elaborately carved Gothic oak case; it stands over the screen, and consequently has a double front, containing, in the western, the open diapason (said to be of Harris's make), and, in the choir front, an open diapason of Byfield's. The tone of the instrument is of fine quality; and, although it is not so powerful as many of the organs recently built, it is inferior to none in general effect. The organ underwent a considerable change some years since, in being removed to its present situation, when the choir organ was taken from its usual position and placed on the south side of the instrument, and the swell organ on the opposite side, both being on a level with the base of the great organ, and unseen from the choir. At this time, double diapason pedal pipes, down to GGG, were added by Bishop, and located on the north side of the

building, under the triforium, having separate bellows and a long movement.

GREAT ORGAN.

1. Open Diapason
2. Ditto ditto
3. Stopped ditto
4. Principal
5. Twelfth
6. Fifteenth
7. Sesquialtera
8. Tierce
9. Claribella, in place of 5 rank Cornet
10. Trumpet.

CHOIR ORGAN.

1. Dulciana to Tenor C
2. Stopped Diapason
3. Principal
4. Stopped Flute
5. Fifteenth
6. Cremona to Tenor F

SWELL ORGAN.

1. Open Diapason
2. Stopped ditto
3. Principal
4. Hautboy
5. Trumpet

PEDAL ORGAN.

Open Diapason to GGG, 21½ feet in length

ACCESSORY STOPS, ETC.

Swell to Great
Great to Pedals
Choir to ditto
3 Composition Pedals

COMPASS.

Great, GG to F in alt.
Choir, GG to F in alt.
Swell, Tenor C to F in alt.
Swell Clavier to GG, acting on Choir Organ below Tenor C

Christ Church Cathedral, Oxford.

The organ in Christ Church Cathedral, Oxford, was built by Father Schmidt in the year 1680, and originally consisted of great and choir organs only. It was enlarged and much improved by Messrs. Gray and Davison in 1848, who made the manuals "long octaves," added the pedal pipes, etc.

GREAT ORGAN.

1. Open Diapason
2. Claribella, in place of 4 rank Cornet
3. Stopped Diapason
4. Principal
5. Twelfth
6. Fifteenth
7. Sesquialtera, 5 ranks
8. Mixture, 2 ranks
9. Trumpet

CHOIR ORGAN.

1. Dulciana
2. Stopped Diapason
3. Principal
4. Flute
5. Cremona

SWELL ORGAN.

1. Double Diapason
2. Open ditto
3. Stopped ditto
4. Principal
5. Trumpet
6. Hautboy

PEDAL ORGAN.

Open Diapason, 16 feet

COUPLERS.

1. Swell to Great
2. Choir to ditto
3. Choir to Pedals
4. Great to ditto

Peterborough Cathedral.

The organ in Peterborough Cathedral was originally built by William Allen, of London, and was opened in June, 1809. It cost 500 guineas, and the old organ; of which the case and both open diapasons from middle D downwards were retained. It has been enlarged by Holditch; but nothing whatever has been done to it of late years, excepting putting a new and separate action to the great and swell organs, on the south side of the organ, which was done for convenience when the service is held in the nave, and which was effected by Allen, son of the original builder; and, excepting that the touch is heavy, in consequence of the length of the action, having to turn a corner, answers the purpose admirably.

GREAT ORGAN.
GG to F in alt.

1. Open Diapason (metal throughout)
2. Ditto ditto ditto
3. Stopped ditto
4. Principal
5. Twelfth
6. Fifteenth
7. Flute
8. Sesquialtera, Bass, 4 ranks
9. Cornet, 4 ranks

CHOIR ORGAN.
GG to F in alt.

1. Stopped Diapason
2. Dulciana
3. Principal
4. Flute
5. Fifteenth
6. Cremona, 3 Octaves to F

SWELL ORGAN.
To Gamut G.

1. Open Diapason
2. Stopped ditto
3. Twelfth
4. Principal
5. Fifteenth
6. Hautboy
7. Trumpet

PEDAL ORGAN.

Double Open Diapason

ACCESSORY STOPS, ETC.

1. Swell to Great
2. Choir to Pedals
3. Great to ditto
4 Composition Pedals to Great

Ripon Cathedral.

There is a fine organ in this cathedral, built by Father Schmidt. It formerly had a case in Grecian architecture; but, about thirty years ago, a new case was built by the

same parties who made the organ case at Westminster Abbey. There were also some additional stops added at that time, by Wren and Boston, of Manchester. The organ at present contains the following stops:

GREAT ORGAN.

1. Open Diapason
2. Ditto ditto
3. Stopped ditto
4. Double Stopped ditto
5. Open Diapason, Treble, by Wren and Co. Manchester
6. Cornet
7. Sesquialtera
8. Principal
9. Twelfth
10. Fifteenth
11. Mixture
12. Tierce
13. Trumpet

CHOIR ORGAN.

1. Open Diapason
2. Stopped ditto
3. Principal
4. Flute
5. Dulciana

SWELL ORGAN.

1. Open Diapason
2. Stopped ditto
3. Principal
4. Dulciana
5. Trumpet
6. Hautboy
7. Cornet

PEDAL ORGAN.

Open Diapason, CC down to GGG, 21½ feet in length

COUPLERS.

1. Swell to Great
2. Great to Pedals
3. Choir to ditto

Rochester Cathedral.

This organ (the tone and general effect of which are excellent) was built by Samuel Green. In 1835, it was considerably enlarged by Hill. Compass of great and choir organs, from GG to E in alt.

GREAT ORGAN.

1. Open Diapason
2. Ditto ditto
3. Stopped ditto
4. Claribella, in place of 4 rank Cornet
5. Principal
6. Twelfth
7. Fifteenth
8. Sesquialtera, 3 ranks
9. Mixture, 2 ranks
10. Trumpet

CHOIR ORGAN.

1. Open Diapason, through, in place of Bassoon
2. Stopped Diapason
3. Dulciana
4. Principal
5. Fifteenth

SWELL ORGAN.

Tenor C to E in alt.

1. Open Diapason
2. Stopped ditto
3. Dulciana
4. Dulciana Principal
5. Principal
6. Cornet, 3 ranks
7. Trumpet
8. Hautboy

PEDAL ORGAN.

Double Open Diapason, CC down to CCC, 16 feet in length

ACCESSORY STOPS, ETC.

1. Swell to Great
2. Great to Pedals
3. Choir to ditto
4. Composition Pedals

Salisbury Cathedral.

The organ in this cathedral (which was a present from His Majesty George the Third) was built by Samuel Green, in 1792, at the cost of 1000 guineas and the old organ (which was one of Harris's, with "50 stops, 4 sets of keys, and 11 stops of echos." The following inscription, in capitals, is placed on the west front of the instrument:

MUNIFICENTIA
GEORGII TERTIA,
CLEMENTISSIMA, PIENTISSIMI, OPTIMI,
PATRIS, PATRIÆ,
ET
HUJUSCE DIÆCESIOS
INCOLÆ AUGUSTISSIMI.

Which is thus translated in the Historical Account of the Cathedral: "The liberal donation of George the Third, the most mild and pious and the best Prince, the Father of his Country, and the renowned Inhabitant of this Diocese."*

GREAT ORGAN.
FFF to E in alt.

1. Stopped Diapason
2. Open ditto
3. Ditto ditto
4. Principal
5. Twelfth
6. Fifteenth
7. Sesquialtera, 3 ranks
8. Furniture, 3 ranks
9. Trumpet, Bass
10. Trumpet, Treble
11. Cornet, 5 ranks to middle C

CHOIR ORGAN.
FFF to E in alt.

1. Stopped Diapason
2. Dulciana to Tenor C
3. Flute
4. Principal
5. Fifteenth
6. Bassoon

* George the Third living constantly at Windsor, his residence was at *that time* in the diocese of Salisbury; and it is recorded, with great truth, that on the Bishop (Barrington) informing his Majesty that the repairs and improvements of the church were defrayed by voluntary contributions, his Majesty, with a promptitude and facility which enhanced the bounty, replied: "I desire you will accept of a new organ for your cathedral, being my contribution as a Berkshire gentleman."

SWELL ORGAN.
Gamut G to E in alt.

1. Open Diapason
2. Stopped ditto
3. Dulciana
4. Principal
5. Trumpet
6. Hautboy
7. Cornet, 3 ranks
8. Vox Humana

COUPLERS.

1. Swell to Choir
2. Swell and Choir to Great
3. Pedals to Great
4. Octave Coupler to the Double Diapasons

Double Diapason Pedal Pipes from FFF to G, first line in the bass i. e. Gamut G

St. Asaph's Cathedral.

The organ in St. Asaph's Cathedral was built by Hill in 1834. In 1859, additions and improvements to the organ, under the superintendence of the organist, Mr. Robert Augustus Atkins, were carried out by Hill and Son, much to the satisfaction of the dean and chapter. The whole effect is considered by all who have heard it to be truly magnificent; indeed, old Hill used to say that the organ, before the alterations, was from the nave "of greater power than the Birmingham Town Hall." What would he say to the effect now?

GREAT ORGAN.
GG to F in alt.

	FEET.
1. Open Diapason	8
2. Ditto ditto	8
3. Gamba	8
4. Stopped Diapason	8
5. Principal	4
6. Nason Flute	4
7. Wald Flute	4
8. Twelfth	3
9. Fifteenth	2
10. Sesquialtera, 3 ranks	
11. Trumpet	8

CHOIR ORGAN.
GG to F in alt.

1. Open Diapason	8
2. Stopped ditto	8
3. Viol di Gamba	8
4. Principal	4
5. Suabe Flute	4
6. Cromorne	8

SWELL ORGAN.
Tenor C to F in alt.

	FEET.
1. Double Diapason	16
2. Open ditto	8
3. Vox Angelica, 2 ranks	8
4. Stopped Diapason	8
5. Principal	4
6. Fifteenth	2
7. Mixture, 3 ranks	
8. Cornopean	8
9. Oboe	8
10. Tremulant	

PEDAL ORGAN.

1. Open Diapason	16
2. Bourdon, 16 feet tone	

COUPLERS.

1. Swell to Great
2. Great to Pedals
3. Choir to ditto

St. David's Cathedral.

This organ was originally built by Father Schmidt, of whose workmanship (excepting the old oak case) only the open metal diapason pipes remain; the rest is the production of Mr. Lincoln, and were supplied about eighteen years ago. The compass of the great organ is from CC to F in alt. Mr. Lincoln having added five notes to the original CC to C in alt.

Of the reeds in the great organ, the posaune only is complete; but the instrument is pierced and ready for the clarion, although there are as yet no pipes for it. There is no choir organ, which is a sad defect, as it is so much required in the cathedral service.

GREAT ORGAN.

1. Double Diapason (i. e. Bourdon and Tenoroon)
2. Open Diapason (metal) (Schmidt's)
3. Ditto ditto (wood)
4. Principal
5. Quint
6. Wald Flute
7. Twelfth
8. Fifteenth
9. Sesquialtera
10. Mixture
11. Posaune (very fine)
12. Clarion (no pipes as yet)

SWELL ORGAN.
From Tenor C.

1. Double Diapason
2. Diapason (metal)
3. Ditto (wood)
4. Principal
5. Piccolo
6. Doublette
7. Cornopean
8. Hautboy
9. Clarion
2 Octaves of Open Diapason Pipes from CCC

COUPLERS.

1. Swell to Great
2. Pedals to Manuals
2 Octaves of Pedals

Southwell Collegiate Church.

The organ in this church was originally built by Father Schmidt; but, having been damaged by fire, it was admirably repaired and completed by Snetzler, whose bill, dated January, 1766, is now in possession of the chapter.

The general effect is excellent, considering the smallness of the number of stops. The diapasons are very fine.

GREAT ORGAN.
GG to D in alt.
1. Open Diapason
2. Stopped ditto
3. Principal
4. Twelfth
5. Fifteenth
6. Sesquialtera, 3 ranks
7. Trumpet
8. Cornet to middle C, 5 ranks

CHOIR ORGAN.
GG to D in alt.
1. Stopped Diapason
2. Dulciana to Gamut G
3. Flute
4. Principal
5. Fifteenth

SWELL ORGAN.
Fiddle G to D in alt.
1. Open Diapason
2. Stopped ditto
3. Principal
4. Fifteenth
Swell Coupler to Great Organ
One Octave and a half of Pedals, but no Pedal Pipes

Wells Cathedral.

The original organ in Wells Cathedral is said to have been built by Father Schmidt; but of this there is now no proof. It was most probably built by Loosemore of Exeter, who erected the organ for Exeter Cathedral in 1665. The old organ at Wells had the date of its erection on the case, "1664," which was soon after the return of Dr. Robert Creyghton, the precentor,* from exile with King Charles II, under whose direction it was built. It afterwards underwent a thorough repair, in fact rebuilt, by Samuel Green in 1786, and was then esteemed one of the best organs in the kingdom; subsequently an octave and a half of pedals and double pedal pipes were added by Smith of Bristol, about the year 1830.

The present organ was erected by Mr. Henry Willis, in June, 1857, and is considered a very fine one.

* Afterwards Bishop of Bath and Wells, and father of Dr. Robert Creyghton, who composed so many services and anthems for Wells Cathedral.

GREAT ORGAN.
CC to G in alt. 56 Notes.

	FEET.
1. Double Diapason ... ...metal	16
2. Open ditto .....ditto	8
3. Ditto ditto .....ditto	8
4. Stopped ditto .....wood	8
5. Principal .....metal	4
6. Ditto .....ditto	4
7. Twelfth .....ditto	3
8. Fifteenth .....ditto	2
9. Sesquialtera, 3 ranks, ditto	
10. Mixture, 3 ranks.....ditto	
11. Posaune.....ditto	16
12. Trombone .....ditto	8
13. Clarion ....ditto	4

CHOIR ORGAN.
CC to G in alt. 56 Notes.

1. Double Diapason .....wood	16
2. Open ditto .....metal	8
3. Dulciana ....ditto	8
4. Stopped Diapason ...wood	8
5. Principal ....metal	4
6. Flute Harmoniqne ...ditto	4
7. Piccolo Harmonique	2
8. Clarinet and Corno di Bassetto	8
9. Oboe (Orchestral), from Fiddle G	8

SWELL ORGAN.
CC to G in alt. 56 Notes.

	FEET.
1. Double Diapason & Dulciana	16
2. Open Diapason .....metal	8
3. Stopped ditto ....wood	8
4. Principal .....metal	4
5. Fifteenth ....ditto	2
6. Echo Cornet, 3 ranks	
7. Contra Fagotto.....wood	16
8. Trumpet..... ...metal	8
9. Hautboy.....ditto	8
10. Clarion ....ditto	4

PEDAL ORGAN.
CCC to F, 30 Notes.

1. Double Diapason .....wood	16
2. Violone, Open .....metal	16
3. Principal ....ditto	8
4. Fifteenth ....ditto	4
5. Mixture, 3 ranks .....metal	
6. Trombone ....wood	8
7. Posaune .....metal	16

COUPLERS.

1. Swell to Great
2. Choir to ditto
3. Swell to Pedals
4. Great to ditto
5. Choir to ditto

Winchester Cathedral.

The old organ in Winchester Cathedral was originally built by Harris, and was considered a fine-toned instrument. It was subsequently rebuilt by Avery, who retained, of the old organ, only the front pipes, and some of the movement. In 1825 it was again rebuilt, by the elder Blyth, of Isleworth, and a new case made. About twelve or fourteen years afterwards, two octaves of double diapason pedal pipes were added; and in 1846 the swell was extended an octave, with some further additions, by James Blyth, which were not completed when Mr. Blyth was taken ill and shortly died.

The following were the contents of this noble instrument:

GREAT ORGAN.

1. Open Diapason (metal)
2. Ditto ditto (wood)
3. Stopped ditto
4. Principal
5. Twelfth
6. Fifteenth
7. Tierce
8. Sesquialtera
9. Mixture
10. Trumpet.

CHOIR ORGAN.

1. Stopped Diapason
2. Dulciana
3. Flute
4. Principal
5. Fifteenth
6. Claribella
7. Cremona

SWELL ORGAN.
To Gamut G.

1. Stopped Diapason
2. Open ditto
3. Principal
4. Cornet
5. Trumpet
6. Hautboy

PEDAL ORGAN.

1. Unison Open Diapason (wood) from G above the bass clef to GG
2. Double Diapason (wood) from G to GGG

2 Octaves of Pedals

COUPLERS.

1. Choir and Swell to Great
2. Choir to Great
3. Pedals to Great and Choir, together or separately

2 Composition Pedals to Great

The present organ, built by Willis, under the direction of Dr. S. S. Wesley, comprises 4 manuals, an independent 32 feet pedal of 8 stops, and altogether 48 sounding stops, nearly all of which are whole stops.

GREAT ORGAN.
CC.

	FEET.
1. Double Diapason	16
2. Open ditto	8
3. Ditto ditto	8
4. Stopped ditto, 8 feet tone	
5. Principal	4
6. Ditto	4
7. Twelfth	2⅔
8. Fifteenth	2
9. Sesquialtera	
10. Mixture	
11. Trombone	8
12. Trumpet	8
13. Clarion	4

CHOIR ORGAN.
CC.

1. Open Diapason	8
2. Stopped ditto, 8 feet tone	
3. Dulciana	8
4. Principal	4
5. Flute	4
6. Fifteenth	2
7. Sesquialtera	
8. Cremona ...8 feet tone	

SWELL ORGAN.
CC.

1. Double Diapason	16
2. Open ditto	8
3. Stopped ditto, 8 feet tone	
4. Principal	4
5. Flute	4
6. Twelfth	2⅔
7. Fifteenth	2
8. Sesquialtera	
9. Mixture	
10. Trumpet	16
11. Ditto	8
12. Hautboy	8
13. Clarion	4

SOLO ORGAN.
CC.

	FEET.
1. Harmonic Flute	8
2. Ditto	4
3. Piccolo	2
4. Horn	8
5. Orchestral Hautboy	8
6. Corni di Bassetto, 8 feet tone	

PEDAL ORGAN.

1. Double Double Diapason	32
2. Double Open ditto	16
3. Double Dulciana	16
4. Open Diapason	8
5. Principal	4
6. Mixture	
7. Trombone	16
8. Tromba	8

COUPLERS.

1. Swell to Great
2. Choir to ditto
3. Great to Pedals
4. Choir to ditto
5. Swell to ditto

Worcester Cathedral.

The organ in Worcester Cathedral was built in 1842, by Messrs. Hill and Co. and is a very fine instrument. Since the third edition of this catechism of the organ was printed, it has been greatly improved, by the swell having been carried down to CC, and a violone stop of 16 feet added to the pedal organ, which are the only alterations made to the organ since it was built. It was one of the largest cathedral organs in this country.

GREAT ORGAN.
CC to F in alt.

	FEET.
1. Stopped Diapason, 8 feet tone	
2. Open ditto, Back	8
3. Ditto ditto, Front	8
4. Bourdon, to meet Tenoroon. 16 feet tone	
5. Principal	4
6. Twelfth	2⅔
7. Fifteenth	2
8. Tenoroon	16
9. Wald Flute	4
10. Sesquialtera, 3 ranks	1⅗
11. Mixture, 2 ranks	⅔
12. Doublette, 2 ranks	2
13. Quint	5⅓
14. Posaune	8

CHOIR ORGAN.
CC to F in alt.

	FEET.
1. Stopped Diapason, 8 feet tone	
2. Claribella	8
3. Dulciana	8
4. Stopped Flute, 4 feet tone	
5. Oboe Flute	4
6. Principal	4
7. Fifteenth	2
8. Cremona, 8 feet tone	

SWELL ORGAN.
CC to F in alt.

1. Double Diapason	16
2. Stopped ditto, 8 feet tone	
3. Open ditto	8
4. Dulciana	8
5. Principal	4
6. Suabe Flute	4
7. Flageolet	4
8. Echo Cornet	
9. Doublette	
10. Oboe	8
11. Cornopean	8

PEDAL ORGAN.
CCC to E.

FEET.

1. Stopped Diapason, 16 feet tone
2. Open ditto 16
3. Violone 16
4. Principal..... 8
5. Fifteenth 4
6. Sesquialtera, 5 ranks
7. Trombone 16

COUPLERS.

1. Swell to Choir
2. Ditto to Great
3. Pedals to Choir
4. Ditto to Great
5 Composition Pedals

York Minster.

This instrument was built after the fire at the Minster in 1829, by Messrs. Elliott and Hill, under the superintendence of the late organist, Dr. Camidge. It was considered the *largest* in the world, containing 80 stops, and 8,000 pipes; it cost about £5,000, including the original gift by the late Earl of Scarborough (who was the senior prebendary of the cathedral at the time the first fire occurred) of £3,000. Unhappily his lordship died before the completion of the instrument, so that the remaining £2,000 had to be furnished by the Chapter, assisted by subscriptions from the neighbouring nobility, gentry, and clergy. It was, however, his lordship's desire and intention to have supplied the sum wanting, beyond that contracted for; but, as his death occurred so suddenly, they were deprived of this advantage, and the present Earl declined carrying out his father's intentions. The great manual contained 4,818 pipes; the swell organ, 1586; the choir organ, 1,899; and the pedal organ, 200 pipes.

In connection with the York Minster organ, various improvements were suggested at different times, and carried out by the late Dr. Camidge, to assist in making up for the defects in its original construction. Still, however, these defects were appreciably visible to all persons conversant with the anatomy of a cathedral organ; and in the spring of the year 1863, the Dean and Chapter instituted an examina-

tion of the instrument, when it was found that it had become considerbly impaired in power. It was, therefore, determined that it should undergo a thorough renovation and reconstruction; and an appeal was made to the public for subscriptions to carry out the object, which was liberally responded to. The reconstruction of the organ was carried out by Messrs. Hill, under the superintendence of Dr. Monk, the present organist.

The following is a description of the large screen organ as it now stands:

GREAT ORGAN.
CC to G in alt.

		FEET.
1.	Double Open Diapason, metal	16
2.	Bourdon ..... wood	16
3.	Open Diapason, East, metal	8
4.	Ditto ditto, West, ditto	8
5.	Ditto ditto, No. 3, ditto	8
6.	Gamba ..... ditto	8
7.	Stopped Diapason..... wood	8
8.	Quint ..... ditto	6
9.	Octave..... ditto	4
10.	Ditto ..... ditto	4
11.	Gemshorn ..... metal	4
12.	Harmonic Flute ... ...ditto	4
13.	Twelfth ..... ditto	3
14.	Fifteenth ..... ditto	2
15.	Octave Flute..... wood	2
16.	Full Mixture, 4 ranks	
17.	Sharp Mixture, 3 ranks	
18.	Tierce Mixture. 3 ranks	
19.	Cornet, 4 ranks	
20.	Glockenspiel, 2 ranks	
21.	Double Trumpet ... ...metal	16
22.	Posaune ..... ditto	8
23.	Trumpet..... ditto	8
24.	Clarion ..... ditto	4

CHOIR ORGAN.
CC to G in alt.

1.	Gedact ..... wood	16
2.	Open Diapason ..... metal	8
3.	Dulciana ..... ditto	8
4.	Stopped Diapason..... wood	8
5.	Octave..... metal	4
6.	Wald Flute ....wood	4
7.	Fifteenth ... .metal	2
8.	Mixture, 2 ranks	
9.	Clarionet	8

SWELL ORGAN.
CC to G in alt.

1.	Bourdon ..... wood	16
2.	Open Diapason ..... metal	8
3.	Dulciana .... ditto	8
4.	Stopped Diapason..... ditto	8
5.	Octave..... ditto	4
6.	Fifteenth ....ditto	2
7.	Full Mixture, 3 ranks	
8.	Dulciana Mixture. 3 ranks	
9.	Double Bassoon	16
10.	Horn	8
11.	Trumpet	8
12.	Oboe	8
13.	Vox Humana	8
14.	Clarion	4

SOLO ORGAN.
CC to G in alt.

1.	Tuba ....metal	16
2.	Ditto ....ditto	8
3.	Harmonic Flute	4

PEDAL ORGAN.
CCC to F, 30 Notes.

1.	Double Open Diapason, wood	32
2.	Ditto ditto, metal	32
3.	Open Diapason ..... wood	16
4.	Sub Bass ....ditto	16
5.	Open Diapason ..... metal	16
6.	Violone ....wood	16

	FEET.
7. Bourdon	16
8. Quint (Stopped)	12
9. Octave....metal	8
10. Octave Boss ....wood	8
11. Flute, Bass ....ditto	8
12. Twelfth ....ditto	6
13. Fifteenth ....ditto	4
14. Mixture, 5 ranks	3½
15. Sackbut ....wood	32
16. Trombone....	16
17. Bassoon ....metal	16
18. Clarion ....ditto	8
19. Octave Clarion....	4

COUPLERS.

1. Great to Pedals
2. Swell to ditto
3. Choir to ditto
4. Swell to Choir
5. Ditto to Great
6. Solo to Swell
7. Ditto to Great

COMPOSITION PEDALS.

2 to Pedal Organ
2 to Swell ditto
4 to Great ditto
2 Tremulants

SUMMARY OF STOPS.

Great Organ	24
Choir ditto....	9
Swell ditto....	14
Solo ditto....	8
Pedal ditto....	19
Total Number of Stops...	76

The Nave Organ, York Minster.

This instrument, which was erected in September, 1863, in the third arch of the north aisle, by Messrs. Hill and Son, from a specification of the present organist, Dr. Monk, is intended for the "Special Services" in the nave, to accompany and support large bodies of singers; for this purpose it has been designed, scaled, and voiced.

It consists of three complete manual organs, and a pedal organ; viz.

GREAT ORGAN.
CC to A, 58 Notes.

	FEET.
1. Bourdon, 16 ft. tone...wood	
2. Open Diapason, No. 1....	8
3. Ditto ditto, No. 2....	8
4. Stopped ditto, 8 feet tone ....wood	
5. Octave....metal	4
6. Harmonic Flute ....ditto	4
7. Twelfth ....ditto	2⅔
8. Fifteenth ....ditto	2
9. Mixture, 4 ranks ....ditto	1⅓
10. Posaune ....ditto	8
11. Clarion ....ditto	4

CHOIR ORGAN.
CC to A, 58 Notes.

	FEET.
1. Cone Gamba, throughout metal	8
2. Dulciana to Tenor C ...ditto	8
3. Lieblich Gedart, 8 feet tone ....wood	
4. Gemshorn....metal	4
5. Lieblich Flöte, 4 feet tone ....wood	
6. Piccolo ....ditto	2
7. Clarinet to Tenor C, 8 feet tone	

SWELL ORGAN.
CC to A, 58 Notes.

	FEET.
1. Bourdon, 16 ft. tone ...wood	
2. Open Diapason ... ...metal	8
3. Stopped ditto, 8 feet tone	
4. Octave	4
5. Fifteenth	2
6. Mixture, 4 ranks	1½
7. Corno	8
8. Oboe	8
9. Clarion	4

PEDAL ORGAN.
CCC to Tenor F, 30 Notes.

1. Open Diapason ... ...wood	16
2. Sub Bass, 16 ft. tone...ditto	16
3. Violone...ditto	16
4. Octave ...metal	8
5. Fifteenth ...ditto	4
6. Trombone... ...wood	16

COUPLERS, ACCESSORY STOPS, ETC.

1. Swell to Great
2. Swell Sub Octave to Great
3. Choir to Great
4. Great to Pedals
5. Choir to ditto
6. Swell to ditto

7 to 10, Four Composition Pedals

Radiating & Concave Pedal Board, and Draw-Stop Jambs placed at an angle, so that the Stops draw towards the performer

CHAPTER XIII.

ORGANS IN LONDON AND ITS ENVIRONS.

Temple Church.

THE beautiful organ in the Temple Church was built by Father Smith in 1688, with quarter tones—14 sounds in the octave. These quarter tones are produced by the ordinary G sharp and E flat keys being divided crossways in the middle; the back halves of which rise as much above the front portion, as do the latter above the naturals. Originally the Temple organ consisted of great and choir organs, ranging from FFF (12 feet) to D in alt. omitting FFF sharp, GG sharp, AA flat, and DD sharp in the bass; and an echo to middle C; the whole being supplied with wind from 3 diagonal bellows. About the middle of the last century, Byfield added a swell of 6 stops to fiddle G, the horn going

to tenor F. In 1843, on the occasion of the complete restoration of the church, the organ was, by the late Mr. Bishop, placed in a spacious organ-chamber, built expressly for its reception, and was re-erected on a new building-frame; the sound-boards were new palleted where necessary; a dulciana was added to the choir in place of the vox humana; the swell was continued down as far as tenor C, and the quarter tones added; the DD sharp was introduced into the great and choir organs; the compass of their manuals extended upwards from D to F in alt.; an octave and a half of FFF pedals were laid down, and an octave of CCC pedal pipes applied to them; 2 pedal couplers, and 1 manual coupler—swell to great—were also added, and 8 composition pedals.

Subsequently the FFF pedals were removed, and a pedal clavier of the proper range—CCC to tenor F—supplied by Robson, together with 8 independent pedal stops, as well as preparation for a fourth; the necessary coupling movements also were introduced for uniting "manuals to pedal" correctly. The old manuals with black naturals and white short keys, were at the same time removed, and new ones supplied.

When the organ was first built, the pipes were crowded together in a most inconvenient and irregular manner, rendering the process of tuning one of great danger to the instrument; but this arrangement was unavoidable on account of the limited dimensions of the site destined for its position, under the centre arch separating the round church from the choir.

The following is a copy of Father Smith's original disposition of the stops—which, however, does not seem to have been strictly adhered to by him. The document itself is

preserved amongst the papers belonging to the Mi Temple.

"THE SCHEDULE.

GREAT ORGAN.

1.	Prestand, of mettle	61	pipes.....	12 foote t
2.	Holflute, of wood and mettle.....	61	,, ...	12 foote.
3.	Principall, of mettle	61	,, ...	06 ,,
4.	Quinta, of mettle	61	,, ...	04 ,,
5.	Super Octave	61	,, ...	02 ,,
6.	Cornett, of mettle	112	,, ...	02 ,,
7.	Sesquialtera, of mettle	183	,, ...	03 ,,
8.	Gedackt, of wainescott	61	,, ...	06 ,,
9.	Mixture, of mettle	226	,, ...	03 ,,
10.	Trumpett, of mettle	61	,, ...	12 ,,

948 pipes.

CHOIR ORGAN.

11.	Gedackt, of wainescott	61	pipes.....	12 foote.
12.	Holflute, of mettle	61	,, ...	06 ,,
13.	A Sadt, of mettle	61	,, ...	06 ,,
14.	Spitzflute, of mettle	61	,, ...	03 ,,
15.	A Violl and Violin, of mettle	61	,, ...	12 ,,
16.	Voice humane, of mettle	61	,, ...	12 ,,

366 pipes.

ECCHOS.

17.	Gedackt, of wood	61	pipes.....	06 foote t
18.	Sup. Octavo, of mettle	61	,, ...	03 ,,
19.	Gedackt, of wood	29	,,	
20.	Flute, of mettle	29	,,	
21.	Cornett, of mettle	87	,,	
22.	Sesquialtera	105	,,	
23.	Trumpet	29	,,	

401
366
948

1715 pipes.

With three full setts of Keys and Quarter Notes.

"21*st June*, 1688. (Signed) BER. SMIT

The internal arrangements being most objection and the mechanism moreover being decayed and impe the choir committee, in the year 1856, recommended tha

organ should be entirely reconstructed, stipulating, of course, that the old pipes should be carefully preserved; and Mr. Robson was instructed to carry out the work, under the superintendence of the organist, Mr. E. J. Hopkins. New and more extensive sound-boards, admitting of a more orderly and systematic arrangement of the pipes, were constructed, larger and more capacious bellows were provided, and entirely new mechanism was introduced throughout the instrument.

At the same time, arrangements were made for the addition of several desirable new stops, including a pedal organ of proportions suitable to the rest of the instrument, and more particularly for the extension of the swell (which had been inserted in the organ in place of the original "Eccho") to its full and proper compass.

In the year 1859, it was decided that the organ should be completed in every respect. For the execution of the greater portion of the work supplied, Mr. Robson was again appointed, and the work completed in 1860; and a performance was given on June 15, by the organist, Mr. E. J. Hopkins. But among the new stops proposed to be inserted were included several of fine and sweet tone, which at present are either not generally or not at all made in England. These stops have mostly been obtained from Germany, and Mr. Edmund Schulze, of Paulinzelle, near Erfurt, visited London with the express purpose of voicing, regulating, and finishing them in the organ. Among them are the hohl flöte (No. 5 in the list of stops printed on the next page), lieblich bordun (29), violin diapason (31), lieblich gedact (33), flauto traverso (34), lieblich flöte (37), nazard and flautino (38).

All the stops in the pedal organ were made and voiced

by Mr. Robson, with the exception of the violone and violoncello, which were voiced by Mr. Schulze.

The bellows of the organ are blown by two of Joy's patent hydraulic engines.

GREAT ORGAN, 16 Stops.
CC to G in alt.

	FEET.
1. Double Diapason, 16 ft. tone	
2. Open ditto, smooth and mellow	8
3. Ditto ditto, clear and strong	8
4. Stopped ditto, metal to Tenor C sharp, 8 feet tone	
5. Hohl Flöte, bass octave, Gedact	8
6. Viola da Gamba	8
7. Principal, smooth and mellow	4
8. Octave, clear and strong	4
9. Nason Flute, stopped, 4 feet tone	
10. Twelfth	2⅔
11. Fifteenth	2
12. Full Mixture, 3 ranks	2
13. Sharp ditto, 5 ranks	2
14. Small Trumpet, old, revoiced	8
15. Large ditto, new	8
16. Clarion	4

SWELL ORGAN, 12 Stops.
CC to G in alt.

17. Bourdon, 16 feet tone	
18. Open Diapason	8
19. Rohr Gedact, 8 feet tone	
20. Principal	4
21. Rohr Flöte, 4 feet tone	
22. Twelfth / Fifteenth	2⅔ / 2
23. Mixture, 4 ranks	1⅓
24. Double Bassoon	16
25. French Horn	8
26. Hautboy	8
27. Clarion	4
28. Orchestral Oboe	8

CHOIR ORGAN, 11 Stops.
CC to G in alt.

29. Lieblich Bordun, 16 ft. tone	
30 Spitz Flöte	8
31. Violin Diapason	8
32. Dulciana	8
33. Lieblich Gedact, 8 feet tone	
34. Flauto Traverso	8
35. Gemshorn	4
36. Violino	4
37. Lieblich Flöte, 4 feet tone	
38. Mixture, 3 ranks	2
39. Corno di Bassetto, 8 ft. tone	

PEDAL ORGAN, 8 Stops.
CCC to Tenor F.

40. Sub Bass, 32 feet tone	
41. Open Bass	16
42. Stopped Bass, 16 feet tone	
43. Violone	16
44. Quint, 10⅔ feet tone	
45. Violoncello	8
46. Twelfth, Bass / Fifteenth, Bass	5⅓ / 4
47. Trombone	16

ACCESSORY STOPS, MOVEMENTS, ETC.

1. Swell to Great
2. Choir Sub Octave to Great
3. Swell to Choir
4. Great to Pedals
5. Swell to ditto
6. Choir to ditto
7, 8, 9, 10, 11. Five Composition Pedals, acting on the Great and Pedal Organs in combination
12, 13, 14, Three Composition Pedals acting on the Swell Organ
15. Soft Pedal Organ
16. Pedal acting on "Swell to Gt."
17. Ditto acting on "Gt. to Pedal"
18. Tremulant
19. Manual Engine
20. Pedal Engine

NUMBER OF PIPES.

Great Organ	1384
Swell Organ	1011
Choir Organ	668
Pedal Organ	270
Total number of Pipes	3333

Cyclorama, Colosseum, Regent's Park.

The Apollonicon Organ erected in the Cyclorama by Bevington and Sons, to accompany the Diorama of Lisbon, contains 3 manuals and a pedal organ.

GREAT ORGAN.

1. Tenoroon
2. Bourdon
3. Unison (metal)
4. Ditto (wood)
5. Claribella
6. Contra Bass
7. Octave
8. Super Octave
9. Twelfth
10. Doublette, 2 ranks
11. Sesquialtera, 4 ranks
12. Furniture, 3 ranks
13. Trumpet
14. Trombone
15. Clarion
16. Octave Clarion

SOLO ORGAN.

1. Double Stopped Diopason, 16 feet tone
2. Salcional
3. Claribella
4. Unison, Bass
5. Wald Flute
6. Suabe Flute
7. Viol di Gamba
8. Clarionet
9. Bassoon
10. Oboe
11. Piccolo

SWELL ORGAN.

1. Tenoroon
2. Flauto Unisone (metal)
3. Ditto ditto (wood)
4. Octave
5. Flageolet
6. Wald Flute
7. Quint
8. Doublette
9. Triplette
10. Octave Quint
11. Posaune
12. Cornopean
13. French Horn
14. Clarion
15. Octave Clarion

PEDAL ORGAN.

1. Double Open Diapason, 16 feet
2. Great Ophicleide, 16 feet
3. Unisone (wood), 8 feet
4. Trombone, 8 feet
5. Principal, 4 feet

A set of Kettle Drums, Triangle, Cymbals, and Effects for the Storm, worked by the one performer.

The roll of the drum is done by machinery set in motion by the performer. The kettle drums are those used at the great commemoration of Handel in 1784, and are very large.

Foundling Hospital.

The present organ at the chapel of the Foundling Hospital (prepared from a specification made by Mr. Willing,

the organist to the chapel) was built by Messrs. Bevington and Sons in 1855, and consists of 3 complete manuals, compass from CC to C, 61 notes, with pedal organ of 2½ octaves. The old organ was built by Parker in 1759, and presented to this charity by Handel. It was afterwards repaired by Bishop, who added a fine set of pedal pipes to CCC. This organ originally had the difference between G♯ and A♭, and D♯ and E♭; but, at the time of the improvements by Bishop, they were removed.

GREAT ORGAN. CC to C, 61 Notes.

			FEET.	PIPES.
1.	Double Open Diapason	metal	Tenor C	16	49
2.	Bourdon	wood	CCC to BB	16 tone	12
3.	Open Diapason	metal	CC, No. 1	8	61
4.	Ditto ditto	ditto	CC, No. 2	8	61
5.	Ditto ditto	ditto	CC, No. 3	8	61
6.	Stopped ditto	wood	CC	8 tone	61
7.	Claribella	ditto	Fiddle G	8	42
8.	Principal	metal	CC, No. 1	4	61
9.	Ditto	ditto	CC, No. 2	4	61
10.	Wald Flute	wood	Tenor C	4	49
11.	Twelfth	metal	CC	2⅔	61
12.	Fifteenth	ditto	CC	2	61
13.	Sesquialtera, 4 ranks	ditto	CC		244
14.	Furniture, 3 ranks	ditto	CC		183
15.	Mixture, 3 ranks	ditto	CC		183
16.	Cornopean	ditto	Tenor C	8	61
17.	Tromba	ditto	CC	8	61
18.	Clarion	ditto	CC		61

CHOIR ORGAN. CC to C, 61 Notes.

1.	Dulciana, Bass	metal	CC	8	12
2.	Ditto Treble	ditto	Tenor C	8	49
3.	Viol di Gamba	ditto	Tenor C	8	49
4.	Stopped Diapason	wood	CC	8 tone	61
5.	Principal	metal	CC	4	61
6.	Wald Flute	wood	Tenor C	4	49
7.	Suabe Flute	ditto	CC	4	61
8.	Fifteenth	metal	CC	2	61
9.	Piccolo	wood	Tenor C	2	49
10.	Contra Fagotta	metal	Tenor C	16	49
11.	Clarinetto	ditto	Tenor C	8	49

A Tremulant Movement.

SWELL ORGAN. CC to C, 61 Notes.

			FEET.	PIPES.
1.	Double Diapason	metal, Tenor C	16	49
2.	Bourdon	wood, CCC	16 tone	49
3.	Open Diapason	metal, CC	8	61
4.	Stopped Diapason, Bass	wood, CC	8 tone	49
5.	Ditto ditto, Treble	ditto, Tenor C	8 tone	49
6.	Dulciana	metal, Tenor C	8	49
7.	Hohl Diapason	ditto, Tenor C	8	49
8.	Principal	ditto, CC	4	61
9.	Wald Flute	ditto, Tenor C	4	49
10.	Sesquialtera, 3 ranks	ditto, CC	4	183
11.	Doublette, 2 ranks	ditto, CC	4	122
12.	Trombone	ditto, CC	16	61
13.	Cornopean	ditto, CC	8	61
14.	Oboe	ditto, CC	8	61
15.	Clarion	ditto, CC	4	61

A Tremulant Movement.

PEDAL ORGAN. CCC to F, 30 Notes.

1.	Open Diapason	metal, CCC	16	30
2.	Ditto ditto	wood, CCC	16	30
3.	Bourdon	ditto, CCC	16 tone	30
4.	Principal	metal, CC	8	30
5.	Trombone	ditto, CCC	16	30
6.	Open Diapason	metal, CC	8	12
7.	Ditto ditto	wood, CC	8	12
8.	Bourdon	ditto, CC	8	12
9.	Principal	metal, CC	4	12
10.	Trumpet	ditto, CC	8	12

ACCESSORY STOPS, MOVEMENTS, ETC.

1. Swell to Great
2. Ditto to Choir
3. Pedals to Swell
4. Pedals to Great
5. Ditto to Choir
6. Octave up to Great

4 Composition Pedals to act on the Great Manual

3	Ditto	ditto	„	Choir ditto
3	Ditto	ditto	„	Swell ditto
3	Ditto	ditto	„	Pedal Organ

TOTAL.

	DRAW STOPS.	PIPES.
Great Organ	18	1421
Choir ditto	11	550
Swell ditto	15	940
Pedal ditto	10	210
Couplers	6	
	60	3121

Christ Church, Newgate Street.

The organ in Christ Church, Newgate Street, was originally built by Harris in 1690. After receiving various additions it was entirely remodelled by Hill in 1885, when all the manual organs were reconstructed to the CC compass. The instrument ranks as one of the largest and finest in London.

GREAT ORGAN.
CC to F in alt.

	FEET.
1. Double Open Diapason	16
2. Open Diapason	8
3. Ditto ditto	8
4. Stopped ditto, 8 feet tone	
5. Principal	4
6. Twelfth	2⅔
7. Fifteenth	2
8. Sesquialtera, 5 ranks	2
9. Mixture, 5 ranks	1⅓
10. Doublette, 2 ranks	2
11. Posaune	8
12. Double Trumpet	16
13. Clarion	4

Prepared for several more Stops.

CHOIR ORGAN.
CC to F in alt.

1. Open Diapason	8
2. Stopped ditto, 8 feet tone	
3. Principal	4
4. Stopped Flute, 4 feet tone	
5. Fifteenth	2

SWELL ORGAN.
CC to F in alt.

	FEET.
1. Double Open Diapason	16
2. Open Diapason	8
3. Stopped Diapason, 8 feet tone	
4. Principal	4
5. Fifteenth	2
6. Mixture, 5 ranks	1⅓
7. Flageolet	4
8. Horn	8
9. Trumpet	8
10. Oboe	8
11. Clarion	4

PEDAL ORGAN.
One Octave, CCC to CC.

1. Great Diapason	wood 16
2. Open ditto	ditto 16
3. Ditto ditto	metal 16
4. Principal	8
5. Twelfth	5⅓
6. Fifteenth	4
7. Sesquialtera, 6 ranks	
8. Mixture, 5 ranks	
9. Posaune	16
10. Clarion	8

8 Couplers, and a Shifting Movement to Swell

Pedal Clavier, CCC to Fiddle G, 2½ octaves

Christ Church, Marylebone.

There is an excellent organ in this church, erected by Bishop in 1825.

GREAT ORGAN.
GG to F in alt.

1. Open Diapason
2. Ditto ditto
3. Stopped ditto
4. Principal
5. Twelfth
6. Fifteenth
7. Sesquialtera, 3 ranks
8. Mixture, 2 ranks
9. Trumpet

CHOIR ORGAN.
GG to F in alt.

1. Dulciana
2. Stopped Diapason (Claribella Treble)
3. Principal
4. Flute
5. Fifteenth
6. Cremona

SWELL ORGAN.
From Tenor C.

1. Open Diapason
2. Stopped ditto
3. Principal
4. Horn
5. Trumpet
6. Hautboy

2½ Octaves of Pedals, CC to G, with 16 feet Pedal Pipes

COUPLERS.

1. Swell to Great
2. Choir to Pedals
3. Great to ditto

3 Composition Pedals

St. Dunstan's in the West, Fleet Street.

The organ in St. Dunstan's Church, Fleet Street, was built by J. R. Robson in 1834. It contains 24 sounding stops.

GREAT ORGAN.
GG, with GG sharp, to F in alt. 59 Notes.

1. Open Diapason, Large
2. Ditto ditto, Small
3. Stopped ditto
4. Principal
5. Twelfth
6. Fifteenth
7. Sesquialtera, 3 ranks
8. Mixture, 2 ranks
9. Trumpet

CHOIR ORGAN.
GG, with GG sharp, to F in alt. 59 Notes.

1. Dulciana all through
2. Stopped Diapason
3. Principal
4. Flute
5. Fifteenth
6. Cremona
7. Bassoon

SWELL ORGAN.
Tenor F to F in alt.

1. Double Diapason
2. Open ditto
3. Stopped ditto
4. Principal
5. Flute
6. Trumpet
7. Hautboy

German Pedals and Pedal Pipes down to GGG, 24 feet

COUPLERS.

1. Great to Pedals
2. Choir to ditto
3. Swell to Great
4. Choir *organ* by a newly invented *coupler* to play an octave below on the Great

3 Composition Pedals

St. Peter's, Cornhill.

The organ in St. Peter's Church, Cornhill, was originally built by Father Smith in 1681, at a cost of £210, inclusive of painting and gilding. It then contained the following stops; compass GG, short octaves, to D in alt.

GREAT ORGAN.

1. Open Diapason
2. Stopped ditto
3. Principal
4. Twelfth
5. Fifteenth
6. Sesquialtera, 3 ranks
7. Mixture, 2 ranks
8. Trumpet
9. Cornet to middle C sharp, 5 ranks

CHOIR ORGAN.

1. Stopped Diapason
2. Principal
3. Fifteenth
4. Cremona

To which Cranz added a Tenor F swell of 6 stops. The "chorus" of Smith's organ was originally a very fine one, but had been in bad hands. A new inside was put to the organ, and the case widened by the insertion of a centre tower by Hill about 1840. On removing the old instrument, it was found to contain many wooden pipes of Smith's construction, which the mellowing hand of time had rendered of more than ordinary value; these were incorporated with the new work. The present organ is considered one of the finest instruments in London.

GREAT ORGAN.
CG to F in alt.

	FEET.
1. Tenoroon Diapason to Tenor C key	16
2. Bourdon, to meet No. 1, 16 feet tone	
3. Principal Diapason	8
4. Stopped Diapason, Treble, 8 feet tone	
5. Ditto ditto, Bass, 8 ft. tone	
6. Dulciana to Tenor C	8
7. Claribel Flute to Tenor C	8
8. Principal Octave	4
9. Wald Flute	4
10. Oboe Flute	4
11. Stopped Flute, 4 feet tone	
12. Twelfth	2⅔
13. Fifteenth	2
14. Tierce	1⅗
15. Sesquialtera, 2 ranks	1½
16. Mixture, 2 ranks	1
17. Doublette, 2 ranks	½
18. Trombone	8
19. Corno Clarion	4
20. Cromorne to Tenor C, 8 ft. tone	

SWELL ORGAN.
CC to F in alt.

	FEET.
1. Tenoroon Dulciana to Tenor C key	16
2. Bourdon to meet No. 1, 16 feet tone	
3. Principal Diapason	8
4. Stopped Diapason, Treble, 8 feet tone	
5. Ditto ditto, Bass. 8 ft. tone	
6. Principal Octave	4
7. Suabe Flute to Tenor C	4
8. Flageolet to Tenor C	4
9. Twelfth	2⅔
10. Fifteenth	2
11. Piccolo to Tenor C	2
12. Sesquialtera, 3 ranks	1⅓
13. Mixture, 2 ranks	½
14. Echo Dulciana Cornet, 5 ranks	
15. Cornopean	8
16. Tromba	8
17. Hautboy	8
18. Clarion	4

PEDAL ORGAN.
CCC to B, 12 Notes.

1. Great Diapason	16
2. Contra Posaune	16

ACCESSORY STOPS, ETC.

1. Swell to Great
2. Great to Pedals
3. Swell to ditto
4. Octave Pedal

4 Composition Pedals

Pedal Clavier CCC to Tenor A, 27 Keys

St. Michael, Cornhill.

The organ in this church was built by Renatus Harris, A. D. 1684. In the year 1789, a swell was added, and other improvements made, by Green; and in 1849 it was entirely reconstructed by Messrs. Robson, under the direction of Mr. Richard Limpus, the organist, and ranks as one of the finest instruments in the metropolis.

GREAT ORGAN.
CC to G in alt. 56 Notes.

FEET.	PIPES.
16. Double Open Diapason, metal	56
8. Large Open Diapason	56
8. Open Diapason	56
8 tone. Stopped Diapason	56
4. Principal	56
4. Wald Flute	56
3. Twelfth	56
2. Fifteenth	56
Sesquialtera, 4 ranks	224
Mixture, 4 ranks	224
8. Trumpet	56
4. Clarion	56

SWELL ORGAN.
CC to G in alt. 56 Notes.

FEET.	PIPES.
16 tone. Double Diapason	56
8. Open Diapason	56
8. Dulciana	44
8 tone. Stopped Diapason	56
4. Principal	56
2. Fifteenth	56
2. Piccolo	56
Sesquialtera, 3 ranks	168
Mixture, 2 ranks	112
8. Oboe	56
8. Horn	56
4. Clarion	85

CHOIR ORGAN.
CC to G in alt. 56 Notes.

FEET.	PIPES.
8. Dulciana	56
8. Viol di Gamba	44
8 tone. Stopped Diapason	56
4. Principal	56
4 tone. Flute ..... metal	56
2. Fifteenth	56
8. Bassoon	56
8 tone. Clarionet	44

PEDAL ORGAN.
CCC to F, 30 Notes.

16. Open Diapason	30
16 tone. Stopped Diapason	30
16. Trombone ..... metal	30

COUPLERS.

1. Swell to Pedals
2. Great to ditto
3. Choir to ditto
4. Swell to Great
5. Ditto to Choir
6. Octave Pedals

NUMBER OF PIPES.

Great Organ	1008
Swell Organ	828
Choir Organ	424
Pedal Organ	90
Total Number of Pipes...	2350

NUMBER OF STOPS.

Great Organ	12
Swell Organ	12
Choir Organ	8
Pedal Organ	3
Couplers	6
Total Number of Stops...	41

There are 4 Composition Pedals

St. Mary-at-Hill.

The organ in this church was built by Messrs. Hill and Co. in 1849, and is a very fine instrument.

GREAT ORGAN.
CC to F, 54 Notes.
(Every Stop throughout).

	FEET.
1. Bourdon and Open Diapason	16
2. Open Diapason	8
3. Gamba	8
4. Stopped Diapason	8
5. Quint	6
6. Octave	4
7. Octave Quint	3
8. Super Octave	2
9. Walde Flute	4
10. Flageolet	2
11. Sesquialtera, 3 ranks	
12. Mixture, 3 ranks	
13. Posaune	8
14. Clarion	4
15. Krumhorn	8

SWELL ORGAN.
CC to F, 54 Notes.

1. Bourdon and Open Diapason	16
2. *Open* Diapason	8
3. Stopped Diapason, Treble.. / Ditto ditto, Bass ...	8 / 8
4. Hohl Flute	8
5. Octave	4
6. Octave Quint	3
7. Super Octave	2
8. Sesquialtera, 3 ranks	
9. Suabe Flute	4
10. Cornopean	8
11. Hautboy	8
12. Clarion	4

PEDAL ORGAN.
CCC to E, 29 Notes.

1. Open Diapason ..... wood	16
2. Octave	8
3. Trombone	16

COUPLERS.

1. Swell to Pedals
2. Great to ditto
3. Swell to Great

St. Edmund the King, Lombard Street.

The organ in the church of St. Edmund the King, Lombard Street, said to have been originally built by Harris, was entirely reconstructed by Bishop in 1833. It is the first instrument that had a swell descending so low as EE; the deepest compass previously adopted being to FF, in Green's organ at Greenwich.

GREAT ORGAN.
GG to F in alt.
1. Open Diapason, metal, throughout
2. Stopped ditto (Claribella Treble)
3. Principal
4. Twelfth
5. Fifteenth
6. Sesquialtera, 3 ranks
7. Trumpet

CHOIR ORGAN.
1. Dulciana to FF
2. Stopped Diapason
3. Principal
4. Flute
5. Cremona to Tenor E

SWELL ORGAN.
EE to F in alt.
1. Open Diapason
2. Stopped ditto
3. Principal
4. Twelfth
5. Fifteenth
6. Hautboy
7. Trumpet

An octave and a half of Pedals, with double Pedal Pipes from GGG to CC, 21½ feet in length

COUPLERS.
1. Swell to Great
2. Ditto to Choir
3. Choir to Great
4. Choir to Pedals
5. Great to ditto

4 Composition Pedals
Shifting Movement to Swell
A fourth set of keys to act on Pedal Pipes, or either row of keys, separately or united

Christ Church, Spitalfields.

The organ in this church is one of the largest and best in the metropolis. It was originally built by Bridge in 1730, for the sum of £600. In 1822, it was repaired by Bishop, who introduced the dulciana into the choir organ, in place of the 3 rank mixture. The instrument suffered materially from water during the fire that occurred in the steeple, and was subsequently repaired and enlarged by Lincoln in 1837, who added the pedal pipes to GGG, and extended *the swell to tenor* C, besides adding several new

stops. In 1852, the organ underwent further enlargement, owing to the spirit and musical taste of the Rev. Mr. Stone, the rector, which amplification was effected by Messrs. Gray and Davison, under the direction of Mr. J. S. Noble, the organist.

GREAT ORGAN.
GG to F in alt. 59 Notes.

1. Open Diapason
2. Ditto ditto
3. Stopped ditto
4. Claribella
5. Principal
6. Ditto
7. Twelfth
8. Fifteenth
9. Ditto
10. Tierce
11. Sesquialtera, 5 ranks
12. Mixture, 2 ranks
13. Furniture, 3 ranks
14. Posaune
15. Trumpet
16. Clarion

CHOIR ORGAN.
GG to F in alt. 59 Notes.

1. Open Diapason
2. Stopped ditto
3. Dulciana
4. Principal
5. Flute
6. Fifteenth
7. Flageolet
8. French Horn to Tenor C
9. Trumpet to Tenor C
10. Cremona
11. Bassoon

SWELL ORGAN.
CC to F in alt. 54 Notes.

1. Double Diapason
2. Bourdon
3. Open Diapason
4. Ditto ditto to Tenor C
5. Stopped ditto to Tenor C
6. Ditto ditto, Bass
7. Principal
8. *Fifteenth*
9. Sesquialtera, 3 ranks
10. Mixture, 2 ranks
11. Contra Fagotto
12. Cornopean
13. Oboe
14. Clarion

PEDAL ORGAN.
Partly GG to middle E, 34 Notes.

1. Open Diapason
2. Bourdon
3. Principal
4. Trombone

ACCESSORY STOPS, MOVEMENTS, ETC.

1. Swell to Great
2. Choir to ditto
3. Swell to Choir
4. Great to Swell (Sforzando)
5. Choir Sub Octave to Great
6. Great to Pedals
7. Great Sub Octave to Pedals
8. Choir to Pedals
9. Swell to ditto
10. Octave Pedal Coupler

7 Composition Pedals

NUMBER OF PIPES.

Great Organ	1329
Choir Organ	551
Swell Organ	798
Pedal Organ	92
Total Number of Pipes...	2769

NUMBER OF STOPS.

Great Organ	16
Choir Organ	11
Swell Organ	14
Pedal Organ	4
	45
Couplers	9
Total Number of Stops...	54

St. Clement Dane's, Strand.

A good organ, built by Schmidt, and altered by Hill.

GREAT ORGAN.
GG to D in alt.

1. Open Diapason
2. Ditto ditto, to Gamut G
3. Stopped ditto
4. Principal
5. Flute
6. Twelfth
7. Fifteenth
8. Sesquialtera, 4 ranks
9. Mixture, 3 ranks
10. Trumpet

CHOIR ORGAN.
GG to D in alt.

1. Stopped Diapason
2. Principal
3. Flute
4. Fifteenth
5. Cremona

SWELL ORGAN.
To F in alt.

1. Open Diapason
2. Stopped ditto
3. Principal
4. Cornet, 4 ranks
5. Trumpet
6. Oboe
7. Clarion

An octave and a half of Pedal Pipes from GG (unisons)

St. Andrew's, Holborn.

The organ in St. Andrew's Church, Holborn, was originally built by Renatus Harris in 1699, and consisted of great and choir organs, comprising 22 stops. A swell of 8 stops to fiddle G was afterwards added by Byfield. A new inside was put to the instrument, soon after the commencement of the present century, by Russell; and in 1841, the whole was entirely remodelled, revoiced, and a new swell added, by Hill.

GREAT ORGAN.
GG to F in alt.

	FEET.
1. Double Open Diapason	16
2. Open Diapason	8
3. Claribella, and Stopped Diapason Bass	8
4. Principal	4
5. Twelfth	2⅔
6. Fifteenth	2
7. Sesquialtera, 3 ranks	1⅓
8. Mixture, 2 ranks	
9. Trumpet	8
10. Clarion	4

SWELL ORGAN.
Tenor C to F in alt.

	FEET.
1. Double Dulciana	16
2. Open Diapason	8
3. Stopped ditto, 8 feet tone	
4. Principal	4
5. Flageolet	4
6. Doublette, 2 ranks	2
7. Hautboy	8
8. Trumpet	8
9. Cornopean	8
10. Clarion	4

CHOIR ORGAN.
GG to F in alt.

	FEET.
1. Open Diapason to Gamut G	8
2. Stopped ditto, 8 feet tone	
3. Principal	4
4. Flute, 4 feet tone	
5. Fifteenth	2
6. Cremona to Tenor C, 8 feet tone	

PEDAL ORGAN.
CCC to Gamut G.

Open Diapason, 16 feet in length
Pedal Clavier, 2 Octaves

ACCESSORY STOPS, MOVEMENTS, &c.

1. Great to Pedals
2. Swell to Great
3 Composition Pedals

St. Botolph, Aldgate.

There is a fine organ in St. Botolph's Church, Aldgate. The great organ was made by Smith in 1676; the rest by Byfield. The 4 rank sesquialtera in the great organ commences with a fifteenth.

GREAT ORGAN.
GG, Short Octaves, to D in alt.

1. Open Diapason
2. Stopped ditto, metal Treble
3. Principal
4. Twelfth
5. Fifteenth
6. Sesquialtera, 4 ranks
7. Mixture, 2 ranks
8. Trumpet

CHOIR ORGAN.
GG, Short Octaves, to D in alt.

1. Stopped Diapason (wood)
2. Dulciana to Tenor C, in place of Vox Humana
3. Principal
4. Flute (metal)
5. Bassoon to Tenor C; used to go through

SWELL ORGAN.
Tenor C to D in alt.

1. Open Diapason
2. Stopped ditto
3. Principal
4. Fifteenth
5. Hautboy

Pedal Clavier, an Octave and a half

St. John's, Waterloo Road.

This organ was built by Bishop, and presented to the church by Thomas Lett, Esq. in 1824. It has 3 rows of keys. It is considered a very fine-toned instrument, and has since been revoiced by Holdich.

GREAT ORGAN.
GG to F in alt.

1. Open Diapason
2. Ditto ditto
3. Stopped ditto
4. *Principal*
5. Twelfth
6. Fifteenth
7. Sesquialtera, 3 ranks
8. Mixture, 2 ranks
9. Trumpet
10. Clarion

CHOIR ORGAN.
GG to F in alt.
1. Dulciana
2. Stopped Diapason
3. Principal
4. Fifteenth
5. Flute
6. Cremona, Treble
7. Bassoon, Bass

SWELL ORGAN.
To Gamut G.
1. Open Diapason
2. Stopped ditto
3. Dulciana
4. Principal
5. French Horn
6. Trumpet
7. Hautboy
The lowest octave of keys is connected with the Choir Organ

PEDAL ORGAN.
1. Double Open Pipes to CCC, 3 Unisons to the bottom
2. Trombone, 7 Pipes, FFF sharp to CCC

COUPLERS.
1. Great to Swell
2. Ditto to Pedals
3. Choir to ditto
3 Composition Pedals to Great Organ, and 1 to Swell Organ.
2 pair of Bellows

St. Saviour's, Southwark.

The organ in St. Saviour's church, Southwark, was built in 1703. The late William Russell, Mus. Bac. Oxon, the celebrated organist to the Foundling Hospital and St. Ann's, Limehouse, supposed it to have been the work of Schreider; others attribute it to Schwarbrook and Harris. The great and choir organs were originally "short octave GG" to E in alt. The swell to fiddle G was a subsequent addition by Byfield. In 1818, the organ was considerably enlarged by Davis, who made the great and choir organs "long octaves," and added the F in alt. The swell was extended to Tenor C; an octave and a half of G pedals were laid down; a similar compass of GGG pedal pipes applied, and a swell and 2 pedal couplers were also introduced. Subsequently, Mr. Bishop put in a cremona in place of the vox humana in the choir organ; a claribella in the room of the 5-rank cornet in the great organ; a new twelfth and fifteenth, and a pedal octave coupler. In 1841, the organ was removed from its previous position between the transepts, to the west end of the new nave. The swell was then extended *down to gamut* G by Bishop, and 2 horizontal bel-

lows provided. At the same time the splendid old case was superseded by the present one, and the largest pipes of the original front were placed inside.

GREAT ORGAN.
GG to F in alt.

1. Double Open Diapason
2. Open Diapason
3. Ditto ditto
4. Stopped ditto
5. Claribella
6. Principal
7. Stopped Flute
8. Twelfth
9. Fifteenth
10. Sesquialtera, 4 ranks
11. Furniture, 3 ranks
12. Trumpet.
13. Clarion

CHOIR ORGAN.
GG to F in alt.

1. Open Diapason
2. Stopped ditto
3. Principal
4. Stopped Flute
5. Fifteenth
6. Mixture, 3 ranks
7. Cremona

SWELL ORGAN.
Gamut G to F in alt.

1. Open Diapason
2. Stopped ditto
3. Principal
4. Sesquialtera, 3 ranks
5. Trumpet
6. Hautboy
7. Clarion

PEDAL ORGAN.
GG to Tenor C.

Open Wood Pipes, CC to GGG, 21½ feet in length

COUPLERS.

1. Swell to Great
2. Choir to ditto
3. Great to Pedals
4. Choir to ditto

St. John's, Southwark.

This organ was built by Cranz, or Crang, rebuilt by Hancock in 1770, and enlarged by J. Walker in 1844.

GREAT ORGAN.
GG to E in alt.

1. Large Open Diapason
2. Small ditto ditto
3. Open Diapason, Treble
4. Stopped ditto
5. Principal
6. Twelfth
7. Fifteenth
8. Sesquialtera
9. Mixture
10. Trumpet
11. Clarion

CHOIR ORGAN.

1. Stopped Diapason
2. Principal
3. Flute
4. *Fifteenth*
5. *Cremona*

SWELL ORGAN.
Gamut G to E in alt.

1. Double Diapason
2. Open ditto
3. Stopped ditto
4. Dulciana
5. Principal
6. Fifteenth
7. Sesquialtera
8. Horn
9. Hautboy
10. Clarion

COUPLERS.

1. Pedals to Choir
2. Ditto to Great
3. Great to Swell

An octave and a half of Pedal Pipes from CCC, 16 feet.

St. James's, Bermondsey.

This organ was built by Bishop in 1829.

GREAT ORGAN.
GG to F in alt. 59 Notes.

1. Open Diapason
2. Ditto ditto
3. Stopped ditto
4. Principal
5. Twelfth
6. Fifteenth
7. Sesquialtera, 3 ranks
8. Mixture, 2 ranks
9. Trumpet
10. Clarion

CHOIR ORGAN.
GG to F in alt. 59 Notes.

1. Open Diapason
2. Stopped ditto
3. Dulciana from Gamut G
4. Principal
5. Flute
6. Fifteenth
7. Cremona, Treble
8. Bassoon, Bass

SWELL ORGAN.
Gamut G to F in alt. 47 Notes, with Keys continued to GG, acting on the Choir Organ

1. Open Diapason
2. Ditto ditto
3. Stopped ditto
4. Principal
5. Cornet (originally 12th, 15th, and Sesquialtera, now unfortunately only 12th and 15th)
6. French Horn
7. Trumpet
8. Hautboy

PEDAL ORGAN.
25 Notes.

1. Double Diapason, GGG, 24 feet
2. Unison, GG, 12 feet
3. Trombone, GG, 12 feet

COUPLERS.

1. Swell to Great
2. Ditto to Choir
3. Great to ditto
4. Pedals to Great
5. Ditto to Choir

COMPOSITION PEDALS, ETC.

1. Full
2. Full, without Reeds
3. Diapasons
4. Shifting Movement, for shutting off all the Swell but the Diapasons
5. Pedal for coupling Swell to Great

There is a Key-board at the side, by means of which a second performer can play the Pedals

St. Mary's, Rotherhithe.

This organ was built by Byfield in 1764. It then contained 2 rows of keys, from GG to E in alt. short octaves, and a swell from fiddle G to E in alt. It has been since altered by Russell, of Gray's Inn Lane, who removed the nason and cornet from the great organ, and introduced an open diapason. He also added an open diapason to the swell, and substituted a cremona for the vox humana in the choir organ, with long octaves, and an octave and a half of pedals, but without separate pedal pipes.

GREAT ORGAN.
GG to F in alt.

	PIPES.
1. Open Diapason	58
2. Ditto ditto	58
3. Stopped ditto	58
4. Principal	58
5. Fifteenth	58
6. Twelfth	58
7. Sesquialtera	174
8. Trumpet	58
9. Clarion	58

CHOIR ORGAN.
GG to F in alt.

1. Stopped Diapason	58
2. Principal	58
3. Flute	58
4. Fifteenth	58
5. Cremona to Tenor C	42

SWELL ORGAN.
G to E in alt.

1. Open Diapason	34
2. Ditto ditto	34
3. Stopped ditto	34
4. Principal	34
5. Hautboy	34
6. Trumpet	34

NUMBER OF PIPES.

Great Organ	638
Choir Organ	274
Swell Organ	204
Total number of Pipes...	1116

St. John's, Hackney.

The original organ in St. John's church, Hackney, was built by Snetzler for the old church, in which edifice it was first erected; but, on the completion of the new church, it was removed thither. In 1797, it was rebuilt by England; the compass of the instrument was extended, by being made "long octaves;" a second open diapason was introduced into the great organ, also a tierce; the great and choir organs were both provided with new and larger sound-boards, and the entire instrument was completely remodelled, and enclosed in a new case of mahogany. When the church was beautified in 1828, the organ underwent further enlargement and improvement, at the hands of the late Mr. Gray, who added an octave of double open pedal pipes to CCC; a dulciana to the choir organ, in place of the vox humana; extended the swell from tenor F to tenor C; introduced 2 manual couplers, to unite the swell and choir to the great organ; applied 3 composition pedals to the great organ; laid down an octave and a half of pedals, and pro*vided the instrument* with a new pair of horizontal bellows.

In 1863, it was entirely rebuilt by Mr. Willis, who has made several additions, such as some couplers, extended the pedals to CCC, and added a double diapason and a claribella. The whole of the reeds are also new, the old ones having been quite worn out. The reeds and diapasons are very fine; but nothing remains of Snetzler's work, except a beautiful open diapason.

GREAT ORGAN.
GG to F in alt.

1. Double Diapason
2. Open Diapason, No. 1
3. Ditto ditto No. 2
4. Claribella
5. Principal
6. Twelfth
7. Fifteenth
8. Tierce
9. Sesquialtera, 3 ranks
10. Mixture, 2 ranks
11. Trumpet
12. Clarion

CHOIR ORGAN.
GG to F in alt.

1. Dulciana
2. Stopped Diapason
3. Principal
4. Flute
5. Fifteenth
6. Corno di Bassetto

SWELL ORGAN.
Tenor C to F in alt.

1. Open Diapason, No. 1
2. Ditto ditto No. 2
3. Principal
4. Fifteenth
5. Trumpet
6. Hautboy
7. Cornet, 3 ranks

PEDAL ORGAN.

Open Diapason CC to CCC, 16 feet in length

ACCESSORY STOPS, ETC.

1. Swell to Great
2. Ditto to Choir
3. Great to Pedals, Unison
4. Ditto ditto, Sub Octave
5. Choir to Great
5 Composition Pedals

St. Peter's, Walworth.

There is a fine organ at this church, built by Lincoln about 1826.

GREAT ORGAN.

1. Open Diapason
2. Ditto ditto
3. Stopped ditto
4. Principal
5. Twelfth
6. Fifteenth
7. Tierce
8. Sesquialtera
9. Mixture
10. Trumpet
11. *Clarion*

CHOIR ORGAN.

1. Open Diapason
2. Stopped ditto
3. Dulciana
4. Principal
5. Flute
6. Fifteenth
7. Cremona
8. Bassoon

SWELL ORGAN.
To Tenor C.

1. Double Diapason
2. Open ditto
3. Stopped ditto
4. Principal
5. Hautboy
6. Trumpet
7. Clarion

COUPLERS.

1. Choir to Great
2. Pedals to ditto
3. Ditto to Choir

Open Unison Pedal Pipes, GG to C, with separate Bellows, etc.

St. George's, Camberwell.

This church has a fine organ, built by Lincoln. The late Mr. Thomas Adams was organist here and at St. Dunstan's, Fleet Street.

GREAT ORGAN.

1. Double Diapason
2. Stopped ditto
3. Open ditto
4. Ditto ditto
5. Principal
6. Twelfth
7. Fifteenth
8. Sesquialtera, 5 ranks
9. Mixture, 4 ranks
10. Trumpet
11. Clarion

CHOIR ORGAN.

1. Dulciana
2. Stopped Diapason
3. Principal
4. Flute
5. Fifteenth
6. Cromorne and Bassoon

SWELL ORGAN.

1. Dulciana
2. Stopped Diapason
3. Open ditto
4. Principal
5. Cornet
6. Trumpet
7. Hautboy

PEDAL ORGAN.

Open Diapason Pipes to CCC

St. Giles, Camberwell.

The organ at this church was built by Mr. J. C. Bishop in 1844, from a specification prepared by Dr. S. S. Wesley.

GREAT ORGAN.
CC to F in alt.

	FEET.
1. Open Diapason	8
2. Ditto ditto	8
3. Ditto ditto (wood, large)	8
4. Claribella	8
5. Principal	4
6. Ditto	4
7. Twelfth	2⅔
8. Fifteenth	2
9. Sesquialtera, 3 ranks	
10. Mixture, 3 ranks	
11. Furniture, 2 ranks	
12. Doublette, 2 ranks	
13. Trumpet	8
14. Clarion	4

CHOIR ORGAN.
CC to F in alt.

	FEET.
1. Open Diapason, metal throughout	8
2. Dulciana, metal throughout	8
3. Stopped Diapason, 8 ft. tone	
4. Claribella	8
5. Principal	4
6. Flute	4
7. Fifteenth	2
8. Mixture, 2 ranks	1½
9. Cremona, 8 feet tone	
10. Bassoon	8

SWELL ORGAN.
CC to F in alt.

1. Double Diapason	16
2. Bourdon, 16 feet tone	
3. Open Diapason	8
4. Ditto ditto	8
5. Stopped ditto, 8 feet tone	
6. Principal	4
7. Fifteenth	2
8. Sesquialtera, 3 ranks	
9. Mixture, 2 ranks	
10. Doublette, 2 ranks	2
11. Horn	8
12. Trumpet	8
13. Hautboy	8
14. Clarion	4

PEDAL ORGAN.

1. Double Diapason	16
2. Open ditto (large scale, metal)	8
3. Double Trumpet	16

Two Octaves and a third of German Pedals

COUPLERS.
Acted on by Pedals as well as Draw-stops

1. Swell to Pedals
2. Great to ditto
3. Choir to ditto
4. Swell to Great
5. Wood open to Pedals separately
8 Composition Pedals

St. George's, Hanover Square.

This fine organ, erroneously attributed to Snetzler, was erected by Gerard Smith (Father Smith's nephew) in 1725, and since repaired by Bishop. It has 3 rows of keys; compass from GG to E in alt. or 5 octaves all but 2 notes; a swell down to tenor C, below which it acts on the choir organ; swell coupler to great organ; an octave and a half of pedals, which act on the great and choir organs; no pedal pipes, except one for the GG sharp, which is not on the keys; and 8 composition pedals, which act on the great organ.*

GREAT ORGAN.

1. Open Diapason
2. Ditto ditto
3. Stopped ditto
4. Principal
5. Fifteenth
6. Twelfth
7. Sesquialtera, 3 ranks
8. Trumpet
9. Clarion

* *Daniel Rosengrave* was the first organist at this church.

CHOIR ORGAN.

1. { Stopped Diapason, Bass
   { Claribella, Treble
2. Principal
3. Fifteenth
4. Dulciana
5. Flute
6. Cremona

SWELL ORGAN.

1. Open Diapason
2. Stopped ditto
3. Principal
4. Trumpet
5. Hautboy
6. Octave Hautboy

ACCESSORY STOPS, ETC.

1. Swell to Great
2. Great to Pedals
3. Choir to ditto
3 Composition Pedals

COMPASS.

Great Organ, GG to E in alt.
Choir Organ, GG to E in alt.
Swell Organ, Tenor C to E in alt.
Swell Clavier, down to GG, acting on Choir Organ below Tenor C
Pedal Clavier, GG to Tenor C

St. James's, Piccadilly.

The old organ at this church was originally built by Renatus Harris in 1687, for Whitehall Chapel, and was placed in St. James's Church immediately after its erection, by order of Queen Mary, in 1691. On the front was this inscription: "The Gift of the Queen, in the year 1691."

In 1852, an entirely new inside was put to this instrument, with the exception of a fine metal stopped diapason, and the front open diapason, which are retained. The handsome old case is also preserved; the new choir organ being enclosed in a new and separate case, placed in front of the gallery.

Ambrose Warren, in his tract, entitled *The Tonometer*, printed in 1727, page 8, gives us the following curious information respecting this organ:

"About the year 1707, when Father Smith, the organ builder, died, I was by the honourable vestry of St. James's parish chosen to keep their organ in tune and order in his stead, which I found to be in a very mean condition in many respects. And, in 1708, I was by the same authorities *ordered to reform* divers stops, and put in several new ones,

which I with help performed, to the full satisfaction of all concerned, as well as myself."

Within the editor's own recollection, which was in the years 1819 and 1820 (when he took organ lessons on this celebrated instrument, which had black instead of white natural keys, and white short keys for the sharps and flats), the organ was very much out of order; it was scarcely playable, some of the stops in the choir organ could not be used, and the trumpet in the great organ was stopped off altogether, being unplayable, the keys rattled, and were much worn, as might be expected from so many years' use; but it was a fine-toned instrument. The diapasons were particularly fine.

The following is the disposition of the stops as the instrument at present stands.

GREAT ORGAN.
CC to F in alt.

		FEET.
1.	Open Diapason	8
2.	Ditto ditto	8
3.	Stopped ditto, metal Treble, 8 feet tone	
4.	German Flute	8
5.	Principal	4
6.	Flageolet	4
7.	Twelfth	2⅔
8.	Fifteenth	2
9.	Sesquialtera, 3 ranks	1⅓
10.	Mixture, 3 ranks	⅔
11.	Posaune	8
12.	Clarion	4

CHOIR ORGAN.
CC to F in alt.

1.	Open Diapason	8
2.	Claribella, Treble	8
	Stopped Diapason, Bass	8
3.	Dulciana	8
4.	Viol di Gamba	8
5.	Principal	4
6.	Flute	4
7.	Fifteenth	2
8	Piccolo	2
9.	Cremona, Treble	8
	Bassoon, Bass	8

SWELL ORGAN.
CC to F in alt.

		FEET.
1.	Bourdon, 16 feet tone	
2.	Open Diapason	8
3.	Stopped ditto, 8 feet tone	
4.	Principal	4
5.	Fifteenth	2
6.	Sesquialtera, 3 ranks	1⅓
7.	Mixture, 3 ranks	⅔
8.	Contra Fagotto	16
9.	Cornopean	8
10.	Hautboy	8
11.	Clarion	4

PEDAL ORGAN.
CCC to Tenor E.

1.	Open Diapason	16
2.	Bourdon, 16 feet tone	
3.	Principal	8
4.	Fifteenth	4

ACCESSORY STOPS, ETC.

1. Swell to Great
2. Choir to ditto
3. Swell to Choir
4. Great to Pedals
5. Swell to ditto
6. Choir to ditto
9 Composition Pedals

St. Mary's Church, Clapham.

This organ was built by Mr. J. C. Bishop in 1845. It has 3 complete rows of keys.

GREAT ORGAN.
CC to F in alt.

	FEET.
1. Open Diapason	8
2. Stopped ditto, 8 feet tone	
3. German Flute	8
4. Principal	4
5. Twelfth	2⅔
6. Fifteenth	2
7. Sesquialtera, 3 ranks	
8. Trumpet	8

CHOIR ORGAN.
CC to F in alt.

1. Open Diapason	8
2. Dulciana	8
3. Stopped Diapason, 8 feet tone	
4. Claribella	8
5. Principal	4
6. Flute	4
7. Fifteenth	2
8. Clarionet, 8 feet tone	
9. Double Diapason, Bass, 16 feet tone	

SWELL ORGAN.
CC to F in alt.

	FEET.
1. Open Diapason	8
2. Stopped ditto, 8 feet tone	
3. Principal	4
4. Twelfth	2⅔
5. Fifteenth	2
6. Sesquialtera, 3 ranks	
7. Mixture, 2 ranks	
8. Horn	8
9. Hautboy	8
10. Clarion	4

2 Octaves of German Pedals, with Double Pedal Pipes, 16 feet

ACCESSORY STOPS, ETC.

1. Swell to Pedals
2. Great to ditto
3. Choir to ditto
4. Swell to Great
5. Choir to ditto
6. Swell to Choir
7. Swell to Great, Octave higher
8 Composition Pedals to Great
8 Ditto ditto to Choir

St. Ann's, Limehouse.

The old organ in this church, built by Richard Bridge in 1741, was a very fine one. It was unfortunately burnt, when the church was burnt down some years ago. The following were the contents of that organ.

GREAT ORGAN.
FFF to F in alt. 60 Notes, omitting the lowest GGG sharp.

1. Stopped Diapason
2. Open ditto, No. 1
3. Ditto ditto, No. 2
4. Principal
5. Twelfth
6. Fifteenth
7. Sesquialtera, 3 ranks
8. Furniture, 2 and 3 ranks
9. *Tierce*
10. Trumpet
11. Cornet, 5 ranks
12. Horn

CHOIR ORGAN.
Same Compass as Great Organ.

1. Stopped Diapason
2. Dulciana
3. Flute
4. Principal
5. Fifteenth
6. Mixture, 2 ranks
7. Cremona

SWELL ORGAN.

Compass not now known;
Probably from Gamut G to F in alt.

1. Stopped Diapason
2. Open ditto
3. Principal
4. Flute
5. Cornet, 3 ranks
6. Hautboy
7. Trumpet
8. Clarion

Pedals, but no Pedal Pipes

NUMBER OF PIPES.

Great Organ	949
Choir Organ	459
Swell Organ	380
Total Number of Pipes...	1788

The new organ at St. Ann's, Limehouse, was built by Gray and Davison, and is the same which those builders erected in the Great Exhibition building in 1851, at the east end. The following is a description of that instrument.

GREAT ORGAN.

	FEET.
1. Double Open Diapason	16
2. Open Diapason	8
3. Ditto ditto	8
4. Stopped ditto, 8 feet tone	
5. Octave	4
6. Stopped Flute, 4 feet tone	
7. Twelfth	2⅔
8. Fifteenth	2
9. Flageolet, Open	2
10. Sesquialtera, 3 ranks	1½
11. Mixture, 3 ranks	⅔
12. Posaune	8
13. Clarion	4

CHOIR ORGAN.

1. Dulciana	8
2. Keraulophon	8
3. Clarinet Flute, 8 feet tone	
4. Stopped Diapason, Bass, 8 feet tone	
5. Octave	4
6. Flute, Open	4
7. Fifteenth	2
8. Clarionet	8

SWELL ORGAN.

1. Bourdon, 16 feet tone	
2. Open Diapason	8
3. Stopped ditto, 8 feet tone	
4. Octave	4
5. Fifteenth	2
6 Sesquialtera, 3 ranks	
7. Cornopean	8
8. Hautboy	8
9. Clarion	4

PEDAL ORGAN.

1. Grand Open Diapason	16
2. Grand Bourdon, 16 feet tone	
3. Grand Octave	8
4. Grand Bombarde	16

ACCESSORY STOPS, MOVEMENTS, ETC.

1. Swell to Great
2. Ditto to Choir
3. Great to Pedals
4. Choir to ditto
5. Swell to ditto
6. Sforzando Pedal
6 Composition Pedals

COMPASS.

Great Organ, CC to F in alt.
Choir Organ, CC to F in alt.
Swell Organ, Tenor C (4 feet compass) to F in alt.
Swell Clavier down to CC, acting on the Choir Organ below Tenor C.
Pedal Clavier, CCC to Tenor E.

St. Leonard's, Shoreditch.

This organ was built by Bridge in 1757. It contains the following stops.

GREAT ORGAN.
GG to E in alt.

1. Open Diapason
2. Ditto ditto
3. Stopped ditto
4. Principal
5. Ditto to middle C, in place of 5 rank Cornet
6. Twelfth
7. Fifteenth
8. Tierce
9. Sesquialtera, 3 ranks
10 Furniture, 2 ranks
11. Trumpet
12. Ditto
13. Clarion

CHOIR ORGAN.
GG to E in alt.

1. Open Diapason
2. Stopped Diapason
3. Principal
4. Fifteenth
5. Flute
6. Cremona to G

SWELL ORGAN.
Fiddle G to E in alt.

1. Open Diapason
2. Stopped ditto
3. Principal
4. Fifteenth, in place of 3 rank Cornet
5. Hautboy
6. Trumpet

Pedal Clavier, One Octave and a half, GG to Tenor C

St. Sepulchre's, Snow Hill.

The organ at this church was built by Renatus Harris about 1670.* It is believed to be the oldest instrument of Harris's make now in London. It originally consisted of great and choir organs only; the compass being from GG, short octaves, to D in alt. About 1780, the organ underwent a thorough repair by the elder Byfield, who added a small tenor F swell; and a new trumpet, clarion, and open diapason bass to the great organ. In 1817, the compass was carried up to E in alt. and long octaves made in the bass by Hancock, who added another open diapason throughout to the great organ; a dulciana to the choir organ, in

* The date given in our former edition of this work, 1667, was incorrect, as the church, after the great fire in 1666, was rebuilt and finished *in 1670.*

place of the vox humana, and an octave of GG pedals, and unison pedal pipes. In 1827, Gray extended the compass of the swell down to gamut G, and laid down 2 octaves of CCC pedals; also 2 couplers, great and choir to pedals, were introduced. In 1835, Gray made a further extension of the swell, and added the great pedal diapason, which is the identical one that was used in the organ erected for the Festival in Westminster Abbey in 1834. A new sound-board was also made to the great organ, for facilitating the tuning, and for improving and preserving the instrument; subsequently the organ was considerably enlarged and improved by Messrs. Gray and Davison. The new work consists of an independent pedal organ of 10 stops; the keraulophon and clarionet stops to the choir organ; an extension of the swell double diapason; new manuals; etc.

GREAT ORGAN.
GG to E in alt.

	FEET.
1. Open Diapason, No. 1	8
2. Ditto ditto, No 2	8
3. Stopped ditto	8
4. Claribella, Treble	8
5. Principal, No 1	4
6. Ditto No. 2	4
7. Twelfth	3
8. Fifteenth	2
9. Tierce	1⅗
10. Larigot	1⅓
11. Sesquialtera, 3 ranks	1⅓
12. Mixture, 2 ranks	1
13. Furniture, 3 ranks	1⅓
14. Trumpet	8
15. Clarion	4

CHOIR ORGAN.
GG to E in alt.

1. Stopped Diapason	8
2. Dulciana	8
3. Keraulophon	8
4. Principal	4
5. Flute	4
6. Fifteenth	2
7. Clarionet	8

SWELL ORGAN.
GG to E in alt.

	FEET.
1. Double Diapason, Bass	16
2. Open Diapason	8
3. Stopped ditto	8
4. Principal	4
5. Fifteenth	2
6. Sesquialtera, 3 ranks	1⅓
7. Horn	8
8. Trumpet	8
9. Hautboy	8
10. Clarion	4

PEDAL ORGAN.
CCC to Tenor F.

1. Grand Open Diapason, wood	16
2. Ditto Violone ....metal	16
3. Ditto Bourdon	16
4. Ditto Principal	8
5. Ditto Twelfth	6
6. Ditto Fifteenth	4
7. Ditto Mixture, 5 ranks	
8. Ditto Posaune	16
9. Ditto Trumpet	8
10. Ditto Clarion	4

M

ACCESSORY STOPS, ETC.

1. Great to Pedals, 16 feet pitch
2. Ditto to ditto, 8 " "
3. Choir to ditto, 8 " "
4. Swell to ditto, 16 " "
5. Ditto to Great
6. Ditto to Choir
7. Choir Sub Octave to Great
8. Sforzando Coupler, Great to Swell
9. Tremulant Swell
7 Composition Pedals for changing the Stops, and a Pedal to act on the Sforzando Coupler

There are 2 pair of Bellows, 1 for the Manuals, the other for the Pedal Organ

St. Mary's Catholic Chapel, Moorfields.

This organ was built by Bevington and Son, the swell being considered particularly fine. It has upwards of 2,200 pipes.

GREAT ORGAN.
FFF to F in alt.

1. Open Diapason, metal, No. 1
2. Ditto ditto ditto, No. 2
3. Ditto ditto small, No. 3
4. Stopped ditto, No. 1
5. Ditto ditto, No. 2
6. Principal, large, No. 1
7. Ditto, No. 2
8. Twelfth
9. Fifteenth
10. Sesquialtera, 4 ranks
11. Mixture, 3 ranks
12. Trumpet
13. Clarion

CHOIR ORGAN.
FFF to F in alt.

1. Open Diapason
2. Stopped ditto
3. Dulciana
4. Principal
5. Fifteenth
6. Mixture, 3 ranks
7. Flute
8. Cremerne

SWELL ORGAN.
FF to F in alt.

1. Double Diapason
2. Open ditto
3. Stopped ditto
4. Claribel
5. Cornet, 3 ranks
6. Principal
7. Trumpet
8. Clarion
9. Oboe

PEDAL ORGAN.

Open Pipes from CC down to FFFF, 24 feet in length

ACCESSORY STOPS, ETC.

3 Couplers
9 Composition Pedals

St. Mark's, Pentonville.

There is a fine organ, built by Gray, at this church.

GREAT ORGAN.

1. Stopped Diapason
2. Open ditto
3. Ditto ditto
4. *Principal*
5. *Twelfth*
6. Fifteenth
7. Sesquialtera, 3 ranks
8. Mixture, 2 ranks
9. Trumpet
10. Clarion

CHOIR ORGAN.

1. Stopped Diapason
2. Open ditto
3. Dulciana
4. Principal
5. Flute
6. Fifteenth
7. Bassoon
8. Cromorne

SWELL ORGAN.

1. Open Diapason
2. Stopped ditto
3. Double Dulciana
4. Principal
5. Dulciana
6. Hautboy
7. Trumpet

PEDAL ORGAN.

Open Pipes to CCC, 16 ft. in length

St. Stephen, Coleman Street.

This organ was erected in 1775, by Avery. It has 3 rows of keys. There are no couplers, composition pedals, nor pedal pipes, but an octave and a half of German pedals to pull down the keys.

GREAT ORGAN.
GG to E in alt.

1. Open Diapason
2. Stopped ditto
3. Principal
4. Twelfth
5. Fifteenth
6. Sesquialtera, 3 ranks
7. Mixture, 2 ranks
8. Trumpet
9. Clarion
10. Cornet to middle C, 5 ranks

These stops are all throughout, except the Cornet

It has no lower GG sharp

CHOIR ORGAN.
GG to E in alt.

1. Stopped Diapason
2. Principal
3. Fifteenth
4. Flute
5. Cremona to Tenor C

SWELL ORGAN.
Fiddle G to E in alt.

1. Open Diapason
2. Stopped ditto
3. Principal
4. Cornet, 3 ranks
5. Trumpet
6. Hautboy

The Cornet in the Swell does not cease at middle C, but is all through

St. Stephen, Walbrook.

The organ in St. Stephen's church, Walbrook, was built by George England about 1760, and was paid for out of the funds raised by subscription. The quality of tone is very good throughout, though the touch is not good; but England's *organs, like* Smith's, were always remarkable for

the brightness and brilliancy of their chorus. It is esteemed one of the best of England's make in London. In 1825, Gray added a second open diapason to the great organ, on the cornet slider, and an octave of unison pedal pipes, which additions considerably enriched the chorus of the great organ.

GREAT ORGAN.
GG to E in alt.

1. Open Diapason
2. Ditto ditto
3. Stopped ditto
4. Principal
5. Twelfth
6. Fifteenth
7. Nason
8. Furniture, 3 ranks
9. Mixture, 2 ranks
10. Trumpet
11. Clarion

CHOIR ORGAN.
GG to E in alt.

1. Stopped Diapason
2. Flute
3. Principal
4. Fifteenth
5. French Horn
6. Vox Humana

SWELL ORGAN.
Fiddle G to E in alt.

1. Open Diapason
2. Stopped ditto
3. Flute
4. Principal
5. Cornet, 3 ranks
6. Hautboy
7. Trumpet
8. Clarion

PEDAL ORGAN.

Open Pipes, GG to Gamut G, 1 Octave, 10½ feet in length

Pedal Clavier, GG to Tenor C, 1 Octave and a half

St. Philip's, Waterloo Place.

The organ in St. Philip's chapel, Waterloo Place, was built by Davis. It is a very good instrument.

GREAT ORGAN.

1. Stopped Diapason
2. Open ditto
3. Principal
4. Twelfth
5. Fifteenth
6. Sesquialtera, 3 ranks
7. Mixture, 2 ranks
8. Trumpet

CHOIR ORGAN.

1. Stopped Diapason
2. Dulciana
3. Flute
4. Principal

SWELL ORGAN.

1. Stopped Diapason
2. Open ditto
3. Principal
4. Cornet, 3 ranks
5. Trumpet
6. Hautboy

PEDAL ORGAN.

Open Pipes to CCC

St. Michael's, Chester Square.

This instrument, built by T. J. Robson, is designed upon the German principle, with especial reference to the requirements of an organ intended for the accompaniment and support of congregational singing; it consists of 3 manual organs, viz. great, choir, and swell, together with an independent pedal organ. The manuals are of the orthodox range, from CC, ascending from thence to G in alt. 56 notes. The pedal board, with the pedal organ running *throughout*, extends from CCC to tenor F, 30 notes, being the *first* pedal organ erected in London of this complete compass.

GREAT ORGAN.

1. Double Stopped Diapason
2. Open Diapason
3. Stopped ditto
4. Principal
5. Flute (wood, open)
6. Twelfth
7. Fifteenth
8. Piccolo (wood, open)
9. Sesquialtera, 3 ranks
10. Mixture, 2 ranks
11. Trumpet
12. Clarion

CHOIR ORGAN.

1. Dulciana
2. Viol di Gamba
3. Stopped Diapason, Treble
4. Ditto ditto, Bass
5. Principal
6. Flute
7. Fifteenth
8. Furniture, 2 ranks
9. Bassoon throughout
10. Clarionet and Corno di Bassetto

SWELL ORGAN.

1. Double Dulciana
2. Open Diapason
3. Stopped ditto
4. Principal
5. Celestina
6. Twelfth
7. Fifteenth
8. Mixture, *3 ranks*
9. Double Bassoon
10. Horn
11. Hautboy
12. Clarion

PEDAL ORGAN.

1. Open Diapason
2. Stopped ditto
3. Trombone (metal)

ACCESSORY STOPS, ETC.

1. Swell to Great
2. Ditto to Choir
3. Great to Pedals
4. Choir to ditto
5. Pedal Octave
3 Composition Pedals

NUMBER OF PIPES.

Great Organ	840
Choir Organ	536
Swell Organ	616
Pedal Organ	90
Total Number of Pipes...	2082

NUMBER OF STOPS.

Great Organ	12
Choir Organ	10
Swell Organ	12
Pedal Organ	3
Number of Sounding Stops...	37
Couplers	5
Total Number of Stops...	42

M 3

St. Paul's, Wilton Place, Knightsbridge.

This fine organ, built by Gray and Davison, is one of the largest and best instruments in the metropolis. It consists of 4 rows of keys, 48 stops, and has an independent pedal organ, an octave lower than the manuals, of 2 octaves and 3 notes in compass, CCC, 16 feet, to E, with 9 ranks of pipes throughout.

GREAT ORGAN.

	FEET.
1. Double Diapason, Bass	16
2. Ditto ditto, Treble	16
3. Open Diapason	8
4. Ditto ditto	8
5. Stopped ditto	8
6. Principal	4
7. Twelfth	3
8. Fifteenth	2
9. Sesquialtera, 4 ranks	
10. Mixture, 2 ranks	
11. Furniture, 2 ranks	
12. Trumpet	8
13. Clarion	4

CHOIR ORGAN.

1. Dulciana	8
2. Keraulophon (new stop)	8
3. Stopped Diapason, Bass	8
4. Ditto ditto, Treble	8
5. Claribella Flute	8
6. Flute	4
7. Principal	4
8. Piccolo	2
9. Fifteenth	2
10. Mixture, 2 ranks	
11. Clarionet	8

SWELL ORGAN.

	FEET.
1. Double Diapason, Bass	16
2. Ditto ditto, Treble	16
3. Open Diapason	8
4. Stopped ditto	8
5. Principal	4
6. Flute	4
7. Fifteenth	2
8. Sesquialtera, 3 ranks	
9. Mixture, 2 ranks	
10. Hautboy	8
11. Cornopean	8
12. Trumpet	8
13. Clarion	4

PEDAL ORGAN.

1. Open Diapason	16
2. Stopped ditto	16
3. Principal	8
4. Fifteenth	4
5. Sesquialtera, 4 ranks	
6. Trombone	16

COUPLERS.

1. Swell to Great
2. Ditto to Choir
3. Ditto to Pedals
4. Great to ditto
5. Choir to ditto

The Swell Organ is of the same compass as the Great and Choir Organs—CC, 8 feet—and is of an improved construction. The 4 reed stops, Hautboy, Cornopean, Trumpet, and Clarion, as well as the Double Diapason of 16 feet, are throughout the whole compass of this part of the instrument. In the Choir Organ are 5 Solo Stops; amongst them, one of quite a new description, which was introduced *for the first time* in this instrument. There are 8 Composition Pedals, to change the stops *in the various organs.*

St. Luke's, Chelsea.

The organ in St. Luke's church, Chelsea, is said to have been built by Nichols,* but completed and erected by Gray.

GREAT ORGAN.
GG to F in alt.

1. Open Diapason
2. Ditto ditto
3. Ditto ditto
4. Stopped ditto
5. Claribella
6. Principal
7. Ditto
8. Fifteenth
9. Ditto
10. Twelfth
11. Tierce
12. Sesquialtera

CHOIR ORGAN.
GG to F in alt.

1. Dulciana
2. Stopped Diapason
3. Principal
4. Fifteenth
5. Flute
6. Cremona

SWELL ORGAN.
To Fiddle G, 2¾ feet compass.

1. Open Diapason
2. Ditto ditto
3. Stopped ditto
4. Dulciana
5. Ditto
6. Principal
7. Ditto
8. Flute
9. Hautboy
10. Trumpet
11. Cornet
12. Clarion

Open Pedal Pipes from Gamut G down to CCC, 16 feet in length, then repeating below

ACCESSORY STOPS, ETC.

1. Swell to Great
2. Great to Pedals
3. Choir to ditto
3 Composition Pedals

Holy Trinity Church, Brompton.

The organ in this church was built by Messrs. Flight and Robson in 1829; since then, Mr. Robson has considerably enlarged the swell organ, by adding new stops, etc.

GREAT ORGAN.

1. Open Diapason
2. Great Open Diapason
3. Stopped Diapason
4. Principal
5. Twelfth
6. Fifteenth
7. Sesquialtera
8. Trumpet

* Although this statement must at the present time stand good as regards Nichols building the organ in this church, yet it is a fact, that it was originally built by England, for a private gentleman, at the expense of £1,000, and was subsequently bought, after this gentleman's death, for this church for £800, at the time the church was built, and that Nichols, who was England's son-in-law, was only the medium in the purchase.

CHOIR ORGAN.
1. Stopped Diapason
2. Dulciana
3. Principal
4. Cremona

SWELL ORGAN.
1. Open Diapason
2. Double Open Diapason
3. Stopped Diapason
4. Principal
5. Fifteenth
6. Sesquialtera
7. Oboe
8. Claribel Flute
9. Echo Dulciana
10. Horn

An Octave of Pedals and Pedal Pipes

ACCESSORY STOPS, ETC.
1. Swell to Great
2. Swell and Choir to Great
3. Octave Coupler to Swell
4. Pedals to Great
5. Ditto to Choir
3 Composition Pedals

Croydon Church.

This organ was built in 1794 by Avery, and enlarged and improved by Messrs. Elliott and Hill in 1819. One of the open diapasons originally acted to gamut G only upon the keys, the last octave being upon the pedals; but Elliott attached the whole stop to the great organ, and added a regular set of an octave and a half of pedal pipes in place of the other pipes of shorter compass. He likewise put in a coupler to unite the choir to great manual.

GREAT ORGAN.
GG to F in alt.
1. Open Diapason, Front
2. Ditto ditto
3. Stopped ditto
4. Principal
5. Flute
6. Twelfth
7. Fifteenth
8. Sesquialtera, 3 ranks
9. Mixture, 2 ranks
10. Cornet, 5 ranks
11. Trumpet

CHOIR ORGAN.
GG to F in alt.
1. Dulciana to Gamut G
2. *Stopped* Diapason
3. *Principal*
4. Flute
5. Fifteenth
6. Furniture, 2 ranks

SWELL ORGAN.
3 Octaves.
1. Open Diapason
2. Stopped ditto
3. Principal
4. Cornet, 3 ranks
5. Trumpet
6. Hautboy

PEDAL ORGAN.
Diapason, 10½ feet in length

COUPLERS.
1. Great to Pedals
2. Ditto to Choir
3. Great to ditto

Lee Church, Kent.

This organ was built by Bishop in 1850. It has 3 complete sets of keys.

GREAT ORGAN.
CC to F in alt.

	FEET.
1. Open Diapason	8
2. Stopped ditto, 8 feet tone	
3. German Flute	8
4. Principal	4
5. Twelfth	2⅔
6. Fifteenth	2
7. Sesquialtera, 3 ranks	
8. Mixture, 2 ranks	
9. Trumpet	8

CHOIR ORGAN.
CC to F in alt.

1. Open Diapason	8
2. Dulciana	8
3. Stopped Diapason, 8 feet tone	
4. Principal	4
5. Flute	4
6. Fifteenth	2
7. Cremona, 8 feet tone	
8. Viol di Gamba	8

SWELL ORGAN.
CC to F in alt.

1. Bourdon, Bass, 16 feet tone	
2. Tenoroon	16
3. Open Diapason	8
4. Stopped Diapason, 8 ft. tone	
5. Principal	4
6. Twelfth	2⅔
7. Fifteenth	2
8. Sesquialtera, 3 ranks	
9. Horn	8
10. Hautboy	8

PEDAL ORGAN.
CCC to Tenor C.

1. Open Diapason	16
2. Stopped Diapason, 16 feet tone	

ACCESSORY STOPS, ETC.

1. Pedals to Choir
2. Ditto to Great
3. Ditto to Swell
4. Swell to Choir
5. Ditto to Great
6. Choir to ditto

7 Composition Pedals; viz.
- 3 to Great Organ
- 4 to Swell Organ

2 Octaves of Pedals

Exeter Hall.

The organ in Exeter Hall was built expressly for the Sacred Harmonic Society in 1839, by Mr. Joseph William Walker, of Francis Street, Tottenham Court Road, and opened by the late Mr. Thomas Adams, on January 23rd, 1840. The exterior, which corresponds with the architecture of the Hall, was designed by Mr. Robert R. Banks. The width of the instrument is 30 feet, and the height 40; the depth in the lower part is but 4 feet 6 inches, the Directors of the Hall having limited the builder to these dimensions, *to prevent* a loss of space on the platform, when

public meetings are held there; and within this lower part the bellows, 4 in number, are placed. Above it, at the height of 12 feet from the floor, comes the main body of the organ, carried out on projecting cantilions or consoles. Over each console rises a circular turret of gilt pipes, surmounted by an ornament imitative of that beautiful ancient specimen, the choragic monument of Lysicrates. The 2 centre towers are considerably higher than the outer ones, and project 5 feet each beyond the body of the instrument; the longest pipes in these towers measure 20 feet from the base and 16 from the body (C and C sharp); the circumference is 45 inches, the diameter 15 inches, and the weight of each 4 cwt. The whole front of the organ, including the circular ends (which are novel features in the design), is divided into 11 compartments of gilt pipes.

In 1849 or 1850, the pneumatic action for lightening the touch was added to the organ, this being the first instance of its employment by any of the London organ builders. Larger and more powerful reed stops were also introduced into the great and swell organs. In 1852, at the time the hall was altered, advantage was taken, on the removal of the organ, to entirely reconstruct it; and the pneumatic action was more extensively applied, by means of which the 3 sets of keys may be played simultaneously, without any extra exertion on the part of the organist. The powerful ophicleide stop which has been added, gives a considerable increase of power, available with great effect in large choral points.

The coupling movements are so constructed that the instrument may be used as a CC organ. Some stops have also been added, as in the continental organs, by means of *which, in case of* disarrangement of any portion of the in-

ıtrument during performance, that part can be immediately lisconnected. These alterations and additions (which were :arried out under the direction of Mr. Brownsmith, the ɔrganist of the Sacred Harmonic Society) were executed by Mr. Walker, the builder, in an unusually short space of ;ime. The organ is tuned on the system of equal tem- ɔerament.

GREAT ORGAN.
FFF to G in alt. 63 Notes.

	PIPES.
1. Double Diapason	51
2. Open ditto	63
3. Ditto ditto	63
4. Stopped ditto	63
5. Principal	63
6. Harmonique Flute	63
7. Twelfth	63
8. Fifteenth	63
9. Sesquialtera	189
10. Mixture	126
11. Furniture	189
12. Trumpet	63
13. Clarion	63

CHOIR ORGAN.
FFF to G in alt. 63 Notes.

1. Open Diapason	63
2. Stopped ditto	63
3. Dulciana	51
4. Principal	63
5. Flute	63
6. Fifteenth	63
7. Cremona	37

SWELL ORGAN.
CC to G in alt. 56 Notes.

1. Double Diapason	56
2. Open ditto	56
3. Stopped ditto	56
4. Dulciana	56
5. Principal	56
6. Flute	56
7. Fifteenth	56
8. Mixture	168
9. Horn	56
10. Hautboy	56
11. Clarion	56
12. Ophicleide	56
13. Octave Ophicleide	56

PEDAL ORGAN.

2 Octaves and a third, 29 Notes.

FEET.	
32. Wood Open Diapason to FFFF	24
16. Ditto ditto ditto to CCC	29
16. Metal ditto ditto ,, ,,	29
16. Bourdon ,, ,,	29
8. Principal ,, ,,	29
4. Fifteenth ,, ,,	29
Mixture ,, ,,	87
16. Shawm ,, ,,	29
8. Octave Shawm ,, ,,	29

NUMBER OF PIPES.

Great Organ	1122
Choir Organ	403
Swell Organ	840
Pedal Organ	314
Total Number of Pipes	2679

NUMBER OF STOPS.

Great Organ	13
Choir Organ	7
Swell Organ	13
Pedal Organ	9
Couplers	8
Total Number of Stops	50

St. Martin in the Fields.

The organ in this church was built by Messrs. Bevington in 1854. It contains 3 manuals from CC to G in alt. (56 keys), and a pedal organ of 2 octaves and a half (30 keys); 2 pairs of double action bellows, with inverted rib, 10 feet long by 7 feet wide, and 59 stops. The whole is enclosed in 2 richly carved cases of solid wainscoat oak. The large case, 29 feet in height by 19 feet in width, contains the great, the swell, and the pedal organs; all the gilt front pipes forming the lower notes of the diapasons, the centre pipe, CCC, being 18 feet in length. The small case in front of the lower gallery, 10 feet wide by 12 feet in height, contains the choir organ, the front gilt pipes also forming a portion of the interior stops. The stops belonging to the great organ have their names engraved in white letters on a blue ground; those of the swell, white letters on a red ground; the choir organ, black letters on mother-of-pearl; the pedal organ, red letters on plain ivory. The couplers, black letters on plain ivory.

GREAT ORGAN. CC to G in alt.

			FEET.	PIPES.
1.	Double Diapason	metal	CCC 16	12
2.	Ditto ditto	ditto	CC 16	44
3.	Open ditto, large scale, No. 1	ditto	8	56
4.	Ditto ditto, No. 2	ditto	8	56
5.	Hohl ditto	ditto	Tenor C 8	44
6.	Stopped ditto	wood	8 tone	12
7.	Claribel	ditto	8	44
8.	Principal, No. 1		4	56
9.	Quint, Double Twelfth		6	56
10.	Decima, Tenth		3 6 in	56
11.	Twelfth		3	56
12.	Fifteenth		2	56
13.	Sesquialtera, 4 ranks			224
14.	Furniture, 3 ranks			168
15.	Mixture, 3 ranks			168
16.	Wald Flute		Tenor C 4	44
17.	Trumpet		CC 8	56
18.	*Clarion*		4	56

CHOIR ORGAN. CC to G in alt.

			FEET.	PIPES.
1.	Bourdon, Double Diapason	wood	16	56
2.	Double Diapason	ditto	Tenor C 16	56
3.	Open ditto	metal	CC 8	56
4.	Viol di Gamba		Tenor C 8	44
5.	Dulciana		Tenor C 8	44
6.	Claribel		8 } tone	56
7.	Stopped Diapason, Bass		8 }	
8.	Principal		4	56
9.	Flute		4	56
10.	Mixture, 3 ranks, Dulciana scale		2	168
11.	Clarionet		Tenor C 8	44
12.	Bassoon, double reed		Tenor C 16	44

SWELL ORGAN. CC to G in alt.

1.	Bourdon, Double Diapason	wood	16 } tone	56
2.	Double Diapason	metal	16 }	
3.	Open ditto	ditto	CC 8	56
4.	Dulciana, small scale	metal	Tenor C 8	44
5.	Stopped Diapason, Treble		8 } tone	56
6.	Ditto ditto, Bass		8 } tone	
7.	Flute		4 tone	56
8.	Principal		4	56
9.	Twelfth		3	56
10.	Fifteenth		2	56
11.	Sesquialtera, 4 ranks			280
12.	Trombone, double reed		CCC 16	56
13.	Cornopean		CC 8	56
14.	Oboe		CC 8	56
15.	Clarion		CC 4	56

PEDAL ORGAN. CCC to F, 30 Notes.

1.	Great Open Diapason	wood	16	30
2.	Bourdon	ditto	16 tone	30
3.	Unison Open Diapason	metal	8	30
4.	Ditto Stopped ditto	wood	8 tone	30
5.	Principal	metal	4	30
6.	Great Trombone	ditto	16	30
7.	Trumpet	ditto	8	30
8.	Quint and Decima	ditto		60
9.	Twelfth and Fifteenth	ditto		60

ACCESSORY STOPS, ETC.

9 Composition Pedals; viz.
- 3 to Great Organ
- 3 to Choir Organ
- 3 to Swell Organ

5 Couplers; viz.
1. Pedals to Great
2. Ditto to Choir
3. Ditto to Swell
4. Swell to Great
5. Ditto to Choir

NUMBER OF PIPES.	
Great Organ	1264
Choir Organ	624
Swell Organ	940
Pedal Organ	330
Total Number of Pipes	3158

NUMBER OF STOPS.	
Great Organ	18
Choir Organ	12
Swell Organ	15
Pedal Organ	9
Couplers	5
Total Number of Stops	59

Holy Trinity Church, Tulse Hill.

The organ at this church was built by Messrs. Jones and Co. in 1857. The draw-stops, pedal actions, and compound and other movements, are of wrought iron.

GREAT ORGAN.

	FEET.
1. Open Diapason, large	8
2. Ditto ditto, (C)	8
3. Stopped ditto, 8 feet tone	
4. Clarinet Flute	8
5. Principal	4
6. Twelfth	3
7. Fifteenth	2
8. Sesquialtera, 3 ranks	
9. Mixture, 3 ranks	
10. Tierce	1⅗
11. Trumpet	8

CHOIR ORGAN.

CC to G in alt.

1. Stopped Diapason, Treble	8
2. Ditto ditto, Bass	8
3. Dulciana	8
4. Gamba (C)	8
5. Flute (C)	4
6. Gemshorn	4
7. Piccolo	2
8. Cremona (C)	8

SWELL ORGAN.

CC to G in alt.

1. Double Diapason	16
2. Bourdon, 16 feet tone	
3. Open Diapason	8
4. Stopped ditto	8
5. Claribel	8
6. Dulciana	8
7. Principal	4
8. Twelfth	3
9. Dulciana Principal	4
10. Fifteenth	2
11. Octave Fifteenth	1
12. Sesquialtera, 3 ranks	
13. Mixture, 2 ranks	
14. Cornopean	8
15. Hautboy (C)	8
16. Clarion	4

PEDAL ORGAN.

CCC to F.

1. Open Diapason	16
2. Principal	8
3. Octave	4
4. Trombone	16

ACCESSORY MOVES, ETC.

1. Pedals to Great
2. Ditto to Swell
3. Ditto to Choir
4. Swell to Great
6 Composition Pedals; viz.
4 to Great Organ
2 to Swell Organ

NUMBER OF PIPES.

Great Organ	772
Choir Organ	356
Swell Organ	946
Pedal Organ	120
Total Number of Pipes	2194

NUMBER OF STOPS.

Great Organ	11
Choir Organ	7
Swell Organ	16
Pedal Organ	4
Total Number of Stops	38

Crystal Palace.

The following is a description of the large organ built by Messrs. Gray and Davison expressly for the Great Handel Festival at the Crystal Palace in 1857.

The space it occupies in the centre transept is 40 feet in width by 24 feet in depth, exclusive of the platform for the two principal reservoirs. Of these reservoirs there are altogether 16, by which a great variety of pressure is obtained, which gives increased brilliancy to the treble portion of the register, and brings out the tone of some of the more commanding stops. The weight of the instrument is about 20 tons.

GREAT ORGAN.
CC to A in alt.

	FEET.
1. Double Open Diapason	16
2. Double Dulciana	16
3. Open Diapason	8
4. Flute à Pavillon	8
5. Claribel Flute	8
6. Flute Harmonique	8
7. Quint	6
8. Flute Octaviante	4
9. Twelfth	3
10. Super-Octave	2
11. Flageolet Harmonique	2
12. Mixture, 4 ranks	
13. Furniture, 3 ranks	
14. Cymbal, 5 ranks	
15. Contra Trombone	16
16. Posaune	8
17. Trumpet Harmonique	8
18. Clarion	4
19. Octave Clarion	2

CHOIR ORGAN.
CC to A in alt.

	FEET.
1. Bourdon	16
2. Gamba	8
3. Salcional	8
4. Voix Celeste	8
5. Clarinet Flute	8
6. Gemshorn	4
7. Claribel Flute	4
8. Spits Flute	2
9. Piccolo	2
10. Mixture, 3 ranks	
11. Cor Anglais and Bassoon	8
12. Trumpet	8

SWELL ORGAN.
CC to A in alt.

	FEET.
1. Bourdon	16
2. Open Diapason	8
3. Vox Humana	8
4. Keraulophon	8
5. Concert Flute	8
6. Octave	4
7. Flute Octaviante	4
8. Twelfth	3
9. Super Octave	2
10. Mixture, 4 ranks	
11. Furniture, 3 ranks	
12. Piccolo Harmonique	2
13. Contra Fagotto	16
14. Cornopean	8
15. Oboe	8
16. Clarion	4
17. Echo Tromba	8

SOLO ORGAN.

1. Flute Harmonique	8
2. Flute Octaviante	4
3. Mixture, 2 ranks	
4. Corni di Bassetto	8
5. Grand Tromba	8

PEDAL ORGAN.
CC to F.

	FEET.
1. Contra Bass	32
2. Contra Bombarde	32
3. Open Diapason ..... wood	16
4. Ditto ditto .....metal	16
5. Violone	16
6. Bombarde	16
7. Octave	8
8. Twelfth	5⅓
9. Super Octave	4
10. Mixture, 4 ranks	
11. Trumpet	8
12. Clarion	4

COUPLERS.

1. Swell to Great
2. Ditto, Octave and Sub Octave
3. Ditto to Choir
4. Choir to Great
5. Ditto to Octave
6. Solo to Great

Each Manual to Pedals

Tremulant

Total Number of Stops.....65

„ „ Pipes...4568

St. Margaret's, Westminster.

The fine organ in St. Margaret's Church, Westminster, was built by Avery in 1804, and cost 800 guineas and the old organ by Father Smith, for which Avery allowed £200. It has since been repaired by Bishop. The following is a description of the organ as it stood in 1858.

GREAT ORGAN.
GG to F in alt.

1. Open Diapason
2. Stopped ditto
3. Claribella, in place of Cornet
4. Principal
5. Nason
6. Twelfth
7. Fifteenth
8. Tierce
9. Sesquialtera, 3 ranks
10. Mixture, 3 ranks
11. Trumpet

CHOIR ORGAN.
GG to F in alt.

1. Stopped Diapason
2. Dulciana
3. Principal
4. Flute
5. Fifteenth
6. Furniture, 2 ranks
7. Cremona

SWELL ORGAN.
Fiddle G to F in alt.

1. Open Diapason
2. Stopped ditto
3. Principal
4. Cornet, 3 ranks
5. Trumpet
6. Hautboy

PEDAL ORGAN.
Gamut G down to GG.

Open Diapason, 1 Octave, 10⅔ feet in length

COUPLERS.

1. Swell to Great
2. Great to Pedals
3. Choir to ditto

The present organ was rebuilt in 1859 by Mr. G. M. *Holdich, who did* the best he could with the old pipes; but,

for want of means, it is still in a very unfinished state. The following is a description of the organ as it now stands.

GREAT ORGAN.
CC to F in alt.

		FEET.
1.	Open Diapason, Front	8
* 2.	Ditto ditto	8
3.	Stopped ditto & Claribella	8
4.	Principal	4
5.	Twelfth	3
6.	Fifteenth	2
7.	Tierce	1⅗
8.	Sesquialtera	
9.	Mixture	
10.	Trumpet	8

CHOIR ORGAN.
CC to F in alt.

1.	Dulciana	8
2.	Stopped Diapason	8
3.	Ditto ditto, Bass	8
4.	Principal	4
5.	Flute	4
* 6.	Slide for Unison Stop	
* 7.	Cremona	8

SWELL ORGAN.
CC to F in alt.

* 1.	Bourdon	16
* 2.	Double Diapason	16
* 3.	Open ditto, Bass	8
4.	Ditto ditto, Treble	8
5.	Stopped ditto	8
6.	Principal	4
7.	Twelfth	3
8.	Fifteenth	2
* 9.	Sesquialtera	
*10.	Double Trumpet	16
*11.	Cornopean	8
12.	Hautboy	8

PEDAL ORGAN.
Extending to CCC, 16 feet.

1.	Open Diapason	16
2.	Stopped ditto	16
3.	Principal	8
4.	Fifteenth	4
5.	Sesquialtera	
6.	Mixture	
7.	Trumpet	16

There are only 4 Notes at present in the Pedal Organ extending to GG, but not including GG sharp

ACCESSORY STOPS, ETC.

1. Pedals to Great
2. Ditto to Choir
3. Ditto to Swell
4. 16 feet Pedals to Great
5. Swell to Great
6. Choir to Swell

3 Composition Pedals to Great
2 „ „ to Swell

2 Octaves and a third of German Pedals

The stops marked thus (*) are not at present in the organ, but the mechanism for them is provided. None of the stops extend through in the swell organ. The old swell organ had only 35 notes in compass; the present one has 54 notes compass. The bellows are of peculiar construction, very large, and will afford an ample supply of wind when the organ has *all the* stops of pipes completed.

The Oratory, Brompton.

The organ in the Oratory, Brompton, was built by Messrs. Bishop and Starr.

This noble instrument is 24 feet wide, 18 feet deep, and 31 feet high, and is surrounded by large metal pipes, which for the present are left in their natural colour. It has 4 large pairs of bellows, with different pressure of wind operated upon by steam power.

GREAT ORGAN.
CC to A in alt. 58 Notes.

FEET.		PIPES.
16.	Sub Open Diapason, metal	58
8.	Open Diapason	58
8.	Bell ditto	58
8.	Claribella	58
8.	Stopped Diapason	58
4.	Principal	58
4.	Wald Flute	58
8	Harmonic Flute	39
3.	Twelfth	58
2.	Fifteenth	58
2.	Block Flute	58
	Sesquialtera, 4 ranks	232
	Mixture, 3 ranks	174
8.	Posaune	58
4.	Clarion	58

SWELL ORGAN.
CC to F in alt. 58 Notes.

16.	Double Diapason, Bass	12
16.	Ditto ditto, Treble	46
8.	Open ditto	58
8.	Salcional	46
8.	Stopped Clarionet Flute	58
4.	Principal	58
4.	Keraulophon	46
2.	Fifteenth	58
	Sesquialtera, 3 ranks	174
	Mixture, 3 ranks	174
16.	Contra Fagotto, Bass	12
16.	Ditto ditto, Treble	46
8.	Cornopean	58
8.	*Hautboy*	58
4.	*Clarion*	58

CHOIR ORGAN.
CC to F in alt. 58 Notes.

FEET.		PIPES.
16.	Bourdon, Bass	12
16.	Sub Dulciana	42
8.	Open Diapason	46
8.	Dulciana, Bass	12
8.	Ditto, Treble	46
8.	Stopped Diapason, Bass	12
8.	Metallic Flute	46
8.	Viol di Gamba	46
4.	Principal	58
4.	German Flute	46
4.	Hohl Flute	58
2.	Fifteenth	58
2.	Piccolo	58
	Dulciana Mixture, 3 ranks	174
8.	Bassoon, Bass	12
8	Ditto, Treble	46
8.	Cremona	46

PEDAL ORGAN.
CCC to E, 29 Notes.

32.	Space for	
16.	Open Diapason, metal	41
16.	Ditto ditto wood	29
16.	Violon	29
16.	Bourdon	41
8.	Principal	41
8.	Stopped Flute	41
4.	Fifteenth	41
	Sesquialtera	82
	Mixture	87
16.	Bombardone	29
8.	Clarion	41

SOLO ORGAN.

CC to A in alt. 58 Notes.

FEET.	PIPES.
8. Tuba	58
8. Flute Harmonique	58
4. Octave Tuba (prepared)	

COUPLERS.

1. Solo to Grand
2. Ditto to Swell
3. Swell to Great
4. Choir to ditto
5. Swell to Choir
6. Solo to Pedals
7. Swell to ditto
8. Great to ditto
9. Choir to ditto
10. Pedal Super Octave Composition, Great and Swell

NUMBER OF PIPES.

Great Organ	1141
Choir Organ	822
Swell Organ	968
Solo Organ	116
Pedal Organ	497
Total number of Pipes...	3544

NUMBER OF STOPS.

Great Organ	15
Choir Organ	17
Swell Organ	15
Solo Organ	3
Pedal Organ	11
Couplers	10
Total Number of Stops...	71

Sardinian Chapel, Lincoln's Inn Fields.

The organ in this chapel was built by Messrs. Bishop and Starr. It has 5 large pairs of bellows, with different pressure of wind, which is highly necessary for so large an instrument.

GREAT ORGAN.

CCC to A in alt. 70 Notes.

FEET.	PIPES.
16. Double Diapason	58
16. Open Diapason, Bass, metal	12
8. Ditto ditto, Treble, ditto	58
8. Ditto ditto, Bright	58
16. Stopped ditto and Claribella	70
8. Harmonic Flute	39
8. Principal	70
4. Ditto	58
4. Wald Flute	58
3. Twelfth	70
2. Fifteenth	70
2. Block Flute	58
Sesquialtera, 4 ranks	280
Mixture, 3 ranks	174
8. Posaune	58
16. Trumpet	70
8. Clarion	70

CHOIR ORGAN.

CC to A in alt. 58 Notes.

8. Dulciana, Bass	12
8. *Ditto, Tenor*	46
8. Viol di Gamba	46
8. Stopped Diapason, Bass	12
8. Ditto ditto, Tenor, metal	46
4. Principal	58
4. Flute	58
2. Fifteenth	58
8. Bassoon	58
8. Cremona	46

SWELL ORGAN.

CC to A in alt. 58 Notes.

16. Double Diapason	58
8. Open ditto	58
8. Stopped ditto	58
4. Principal	58
2. Fifteenth	58
Mixture, 3 ranks	174
16. Contra Fagotto	58
8. Horn	58
8. Hautboy	58
8. Clarion	58

PEDAL ORGAN.
CC to E, 29 Notes.

FEET.		PIPES.
32	Contra Bourdon	29
16.	Open Bass	29
16.	Bourdon	29

ACCESSORY STOPS, ETC.

1. Great to Pedals, 16 feet
2. Ditto to ditto, 8 feet
3. Choir to ditto
4. Swell to ditto
5. Choir to Great
6. Swell to ditto
7. Ditto to Choir

2 Octaves and a third of Pedals
4 Composition Pedals to Great
3 Ditto ditto to Swell
Movement to take on and off 16 feet Pedal Stop

NUMBER OF PIPES.

Great Organ	1331
Choir Organ	440
Swell Organ	696
Pedal Organ	87
Total Number of Pipes	2554

NUMBER OF STOPS.

Great Organ	17
Choir Organ	10
Swell Organ	10
Pedal Organ	3
Couplers	7
Total Number of Stops	47

CHAPTER XIV.

COUNTRY ORGANS.

Town Hall, Birmingham.

The splendid organ in the Town Hall, Birmingham, was built by Mr. William Hill, of London, and cost about £3000. It is 35 feet wide, 15 feet deep, and 40 feet high, and has 4 sets of keys, and 5 pairs of bellows. The bellows contain 300 square feet of surface, and upwards of 3 tons' weight upon the bellows are required to give the necessary pressure. The principal metal pipe standing in front of the organ is 32 feet long and 24 inches in diameter, and is formed, as all the large metal pipes are, of zinc only. There *are 2 octaves* and a half of pedals, which have 15 stops

appropriated to them; the largest pedal pipes, 32 feet long, stand in the centre tower, and look very majestic. This organ has a fourth manual, in connection with a combination or solo organ, upon which, by an ingenious contrivance, can be played any stop or stops out of the swell or choir organs, without interfering with their previous arrangement on their separate manuals. The timber alone used in this instrument weighs between 20 and 30 tons; and the metal and other materials employed in its formation raise it to a total weight of at least 40 tons.

GREAT ORGAN.
CCC to F in alt. 66 Notes.

	FEET.
1. Double Open Diapason	16
2. Open Diapason	8
3. Ditto ditto	8
4. Ditto ditto	8
5. Stopped ditto, 8 feet tone	
6. Quint, 5⅓ feet tone	
7. Principal	4
8. Ditto	4
9. Twelfth	2⅔
10. Fifteenth	2
11. Sesquialtera, 5 ranks	
12. Furniture, 5 ranks	
13. Mixture, 3 ranks	
14. Doublette, 2 ranks	
15. Double Trumpet	16
16. Contra Posaune	8
17. Clarion	4
18. Octave Clarion	2
19. Great Ophicleide, on a heavy pressure of wind	8

CHOIR ORGAN.
CCC to F in alt. 66 Notes.

1. Open Diapason	8
2. Stopped ditto, 8 feet tone	
3. Dulciana	8
4. Principal	4
5. Fifteenth	2
6. Wald Flute	4
7. Oboe Flute	4
8. Flute	4
9. Cornopean	8

SWELL ORGAN.
CC to F in alt. 54 Notes.

	FEET.
1. Double Diapason	16
2. Open ditto	8
3. Stopped ditto, 8 feet tone	
4. Principal	4
5. Fifteenth	2
6. Sesquialtera, 5 ranks	1⅓
7. Horn	8
8. Trumpet	8
9. Oboe	8
10. Clarion	4

PEDAL ORGAN.
CCCC to F, 2½ Octaves.

1. Contra Open Diapason, metal	32
2. Ditto ditto ditto, wood	32
3. Open Diapason ... metal	16
4. Ditto ditto ... ditto	16
5. Ditto ditto ... wood	16
6. Stopped ditto, 16 feet tone	
7. Principal	8
8. Twelfth	6
9. Fifteenth	4
10. Sesquialtera, 5 ranks	
11. Mixture, 5 ranks	
12. Contra Posaune	32
13. Posaune	16
14. Trumpet	8
15. Clarion	4

COMBINATION, OR SOLO ORGAN.
Choir, 8 Stops.
1. Open Diapason
2. Cornopean
3. Dulciana
4. Stopped Diapason
5. Harmonica
6. Flute
7. Cremona
8. Bells
Swell, 9 Stops.
9. Hautboy
10. Clarion
11. Trumpet
12. Horn
13. Fifteenth
14. Claribella
15. Principal
16. Open Diapason
17. Stopped ditto

ACCESSORY STOPS, MOVEMENTS, ETC.
1. Swell to Great
2. Choir to ditto
3. Pedals to ditto
4. Ditto to Choir
5. Pedals only
6. Combination, Choir
7. Ditto, Swell
7 Composition Pedals

St. Paul's, West Street, Brighton.

The organ in this church was built by Mr. G. M. Holdich, and opened in 1850. It then consisted of 2 rows of keys and pedal pipes. In the year 1861, Mr. Holdich greatly enlarged it, and it is now considered one of the largest parish church organs in the country. It consists of 3 rows of keys, and an independent pedal organ. The front of the organ is placed in the chancel on a bracket, and the internal machinery goes back into the choir. Although in such a confined space, the effect in the church is very grand and satisfactory.

GREAT ORGAN.
CC to G in alt.

	FEET.
1. Open Diapason	8
2. Ditto ditto	8
3. Stopped ditto and Claribella	8
4. Principal	4
5. Twelfth	3
6. Fifteenth	2
7. Tierce	1⅗
8. Sesquialtera	1⅔
9. Mixture	
10. Trumpet	8

CHOIR ORGAN.
CC to G in alt.

	FEET.
1. Dulciana, Bass	8
2. Ditto	8
3. Bell Gamba	8
4. Stopped Diapason	8
5. Flute	4
6. Principal	4
7. Fifteenth	2
8. Cremona and Bassoon	8

SWELL ORGAN.
CC to G in alt.

	FEET.
1. Bourdon	16
2. Double Diapason	16
3. Open ditto	8
4. Stopped ditto, Bass	8
5. Ditto ditto, Treble	8
6. Dulciana	8
7. Principal	4
8. Fifteenth	2
9. Sesquialtera	
10. Double Trumpet	16
11. Cornopean	8
12. Hautboy	8

PEDAL ORGAN.
CCC to E, 2½ Octaves.

1. Double Double Diapason	32
2. Double Diapason	16
3. Bourdon	16
4. Montre, Open ...metal	16
5. Octave	8
6. Super Octave	4
7. Trombone	16

ACCESSORY STOPS, ETC.

1. Pedals to Great
2. Ditto to Choir
3. Ditto to Swell
4. Swell to Great
5. Choir to Great, Sub Octave
6. Ditto ditto, Unison
7. Ditto to Swell

7 Composition Pedals

St. James's Church, Bury St. Edmunds.

The following is a description of the organ in this church, which has been entirely reconstructed and remodelled from the designs of Mr. Fearnside, organist, by Mr. J. W. Walker, of Francis Street, Tottenham Court Road, London. The instrument consists of 3 complete manual organs, and a pedal organ. It has a handsome projecting frontage of fine spotted metal speaking pipes facing the chancel, enclosed in a wrought-iron screen, and supported by massive fittings of carved oak.

GREAT ORGAN.
CC to G in alt. 56 Notes.

FEET.	PIPES.
16. Double Open Diapason, lowest octave wood, stopped	56
8 Open Diapason (large)	56
8. Ditto ditto (small)	56
8 tone. Stopped ditto	56
8 tone. Claribella to Tenor C	44
4. Principal	56
2⅔. Twelfth	56
2. Fifteenth	56
Sesquialtera, 3 ranks	168
Cornet to middle C, 5 ranks	160
1⅗. Tierce	56
8. Trumpet	56
4. Clarion	56

CHOIR ORGAN.
CC to G in alt. 56 Notes.

8. Open Diapason	56
8. Keraulophon to Tenor C	44
8 tone. Stopped Diapason	56
4. Principal	56
4 tone. Flute	56
2. Piccolo	56
8. Cremona to Tenor C	44

SWELL ORGAN.
CC to G in alt. 56 Notes.

FEET.	PIPES.
16 tone. Double Diapason	56
8. Open Diapason	56
8 tone. Stopped Diapason	56
4. Principal	56
2. Fifteenth	56
Sesquialtera, 3 rauks.....	168
8. Hautboy	56
8. Cornopean	56
4. Clarion	56

PEDAL ORGAN.
CCC to Tenor F, 30 Notes.

16. Open Diapason	30
16 tone. Bourdon	30

ACCESSORY STOPS, ETC.

1. Swell to Great
2. Choir to ditto
3. Great to Pedals
4. Choir to ditto
5. Swell to ditto
6 Composition Pedals

NUMBER OF PIPES.

Great Organ	932
Choir Organ	368
Swell Organ	616
Pedal Organ	60
Total Number of Pipes...	1976

NUMBER OF STOPS.

Great Organ	12
Choir Organ	7
Swell Organ	9
Pedal Organ	2
Couplers.....	5
Total Number of Stops...	36

St. John's, Chester.

The organ in St. John's, Chester, built by Hill, has 3 rows of keys, from CC, the 8 feet pipe, to F in alt. and a small pedal organ of 2 octaves, from CCC, 16 feet, to C, 4 feet.

Although the pedal organ consists of only 8 stops, the upper octave, by means of a coupler, is connected to the lower octave, thus doubling its power; for instance: the foot being placed on the lowest pedal key, a double open diapason pipe of 16 feet, a double stopped diapason of 8 feet, a double trumpet of 16 feet (similar to the one in the Birmingham organ), and a trumpet of 8 feet, speak together: also an open diapason of 8 feet, and a stopped diapason of 4 feet.

GREAT ORGAN.

1. Open Diapason
2. Ditto ditto
3. Stopped ditto
4. *Principal*
5. Twelfth
6. Fifteenth
7. Sesquialtera, 4 ranks, Bass
8. Cornet, 4 ranks, Treble
9. Trumpet

CHOIR ORGAN.

1. Double Stopped Diapason, Bass
2. Open Diapason
3. Dulciana
4. Stopped Diapason, Bass
5. Claribella
6. Principal
7. Fifteenth
8. Cremona

SWELL ORGAN.

Tenor C to F in alt.

1. Double Stopped Diapason
2. Open Diapason
3. Stopped ditto
4. Principal
5. Fifteenth
6. Sesquialtera, 3 ranks
7. Trumpet
8. Hautboy

PEDAL ORGAN.

1. Double Trumpet, 16 feet
2. Double Stopped Diapason, 8 feet
3. Double Open ditto, metal, 16 feet

COUPLERS.

1. Swell to Great
2. Choir to ditto
3. Pedals to Choir
4. Ditto to Great
5. Octave Coupler

Great George Street Chapel, Liverpool.

The fine organ in Great George Street chapel, Liverpool, was built by Hill in 1841.

GREAT ORGAN.

CC to F in alt.	FEET.
1. Tenoroon to Tenor C	16
2. Bourdon to meet No. 1, 16 feet tone	
3. Open Diapason	8
4. Ditto ditto	8
5. Stopped ditto, 8 feet tone	
6. Quint	5⅓
7. Principal	4
8. Flute	4
9. Tenth	3⅕
10. Twelfth	2⅔
11. Fifteenth	2
12. Sesquialtera, 3 ranks	1⅗
13. Mixture, 3 ranks	1⅓
14. Doublette, 2 ranks	2
15. Posanne	8
16. Clarion	4

CHOIR ORGAN.

CC to F in alt.

1. Open Diapason	8
2. Stopped ditto, 8 feet tone	
3. Claribella	8
4. Principal	4
5. Dulciana	8
6. Stopped Flute, 4 feet tone	
7. Wald Flute	2
8. Cremona, 8 feet tone	
9. Oboe Flute	8

SWELL ORGAN.

CC to F in alt.	FEET.
1. Tenoroon to Tenor C	16
2. Bourdon, to meet No. 1, 16 feet tone	
3. Contra Fagotto	16
4. Open Diapason	8
5. Stopped ditto	8
6. Dulciana	8
7. Quint	5⅓
8. Principal	4
9. Twelfth	3
10. Fifteenth	2
11. Snabe Flute	4
12. Flageolet	2
13. Sesquialtera, 3 ranks	1⅗
14. Mixture, 2 ranks	1
15. Echo Cornet, 5 ranks	
16. Cornopean	8
17. Trumpet	8
18. Oboe	8
19. Clarion	4
20. Corno Flute	8

PEDAL ORGAN. CCC to D.

1. Open Wood	16
2. Bourdon	16
3. Principal	8
4. Fifteenth	4
5. Sesquialtera, 5 ranks	
6. Trombone	16

SOLO ORGAN.

Tuba Mirabilis

Shire Hall, Gloucester.

The organ in the Shire Hall at Gloucester, was built by Mr. John Nicholson, of Worcester, in 1849.

GREAT ORGAN.
CC to G in alt. 56 Notes.

	PIPES.
1. Double Open Diapason, metal	56
2. Large Open Diapason, ditto	56
3. Small ditto ditto, ditto	56
4. Stopped Diapason, Bass ... } 5. Ditto ditto, Treble }	56
6. Wald Flute	56
7. Principal	56
8. Twelfth	56
9. Fifteenth	56
10. Mixture, 2 ranks	112
11. Viol di Gamba	44
12. Trombone	56
13. Clarion	56

CHOIR ORGAN.
CC to G in alt. 56 Notes.

1. Dulciana, metal	56
2. Stopped Diapason, Bass ... } 3. Ditto ditto, Treble }	56
4. Principal	56
5. Keraulophon to Tenor C	44
6. Fifteenth	56
7. Cremona	44

SWELL ORGAN.
CC to G in alt. 56 Notes.

	PIPES.
1. Bourden	56
2. Open Diapason	56
3. Stopped ditto	56
4. Principal	56
5. Fifteenth	56
6. Sesquialtera, 3 ranks	168
7. Cornopean	56
8. Hautboy	56
9. Clarion	56
10. Cromorne	56

PEDAL ORGAN.
CCC to F, 30 Pedals.

	FEET.
1. Large Double Open	16
2. Small ditto ditto	16
3. Principal	8
4. Fifteenth	4
5. Sesquialtera, 5 ranks	
6. Posaune	16

COUPLERS.

1. Great to Pedals
2. Swell to ditto
3. Choir to ditto
4. Great to Swell
5. Ditto to Choir
6. Choir to Swell

Henley-on-Thames.

Description of the organ in the parish church, Henley-on-Thames, erected in 1854 by Mr. G. M. Holdich:

This organ consists of 3 whole rows of keys, namely: great, choir, and swell organs; it has also a large pedal organ, extending 2 octaves and a third. The compass of the keys is of the German scale, namely: from CC to F in alt.

GREAT ORGAN.

	FEET.
1. Large Open Diapason, Front	8
2. Open Diapason	8
3. Claribella, Treble	8
3. Stopped Diapason, Bass	8
4. Flute	4
5. Principal	4
6. Twelfth	2⅔
7. Fifteenth	2
8. Tierce	1⅗
9. Sesquialtera	1½
10. Mixture	
11. Trumpet	8
12. Clarion	4

CHOIR ORGAN.

1. Dulciana	8
2. Claribella	8
3. Stopped Diapason, Bass	8
4. Principal	4
5. Flute	4
6. Fifteenth	2
7. Piccolo	2
8. Cremona	8

SWELL ORGAN.

1. Open Diapason	8
2. Stopped Diapason, Bass	8
3. Ditto ditto Treble	8
4. Double Diapason	16
5. Bourdon, CCC	16
6. Viol di Gamba	8
7. Principal	4
8. Fifteenth	2
9. Tierce	1⅗
10. Sesquialtera	1½
11. Double Trumpet	16
12. Cornopean	8
13. Hautboy	8
14. Diaocton	

The diaocton stop (which is an invention of Mr. G. M. Holdich) has the power of making every single stop in the swell organ equal to two; thus the effect it produces is as though the swell organ possessed

1. Open Diapason
2. Principal
3. Stopped Diapason
4. Flute
5. Double Diapason
6. Diapason
7. Viol di Gamba
8. Violin
9. Principal
10. Fifteenth
11. Ditto
12. Doublette
13. Tierce
14. Octave Tierce
15. Sesquialtera
16. Mixture
17. Double Trumpet
18. Trumpet
19. Cornopean
20. Clarion
21. Hautboy
22. Octave Hautboy

The pedal organ extends 2 octaves and a third, from CCC, 16 feet, to E.

PEDAL ORGAN.

	FEET.
1. Grand Double Diapason	16
2. Grand Bourdon	16
3. Grand Principal	8
4. Grand Trombone	16

The effect of the pedal organ can be also doubled by means of a coupler stop, and gives the effect of

1. Grand Double Diapason
2. Grand Unison
3. Grand Bourdon
4. Grand Flute
5. Grand Principal
6. Grand Fifteenth
7. Grand Trombone
8. Grand Trumpet

ACCESSORY STOPS, ETC.

1. Swell to Great
2. Choir to Swell
3. Great to Choir
4. Sub Octave
5. Pedals to Great
6. Ditto to Choir
7. Ditto to Swell
8. Octave Coupler to Pedals
9. Organ

10 Composition Pedals to pull in and out the various Stops and Couplers

The ground plan of this organ is a square of 17 feet.

Lynn Regis.

The old organ at St. Margaret's church, Lynn Regis, Norfolk, which was partly the work of Dallans, and partly the production of some more ancient workman, was given to the church by "John Tinner" in 1679. The present fine instrument was built by the celebrated Snetzler, under the direction of Dr. Burney, in 1754. It is the largest instrument Snetzler ever made in England.

It was in this organ that Snetzler first introduced the dulciana. Part of the old organ had been made by Dallans, the rest by some more ancient workman, as the wooden pipes were so worm-eaten as to fall to pieces when taken out to be cleaned. Upon the churchwardens asking Snetzler what this old instrument would be worth, if repaired, he said, "If they would lay out £100 upon it, perhaps it would then be worth £50."

The Lynn organ originally contained a 3-rank furniture in the great organ, in addition to the 4-rank sesquialtera; also a separate tierce, and a bourdon in metal to CC,

excepting the 2 lowest pipes, which were of wood. These 8 stops were at some time cancelled, and a second open diapason, principal, and fifteenth placed in their stead; a claribella has also been inserted in the choir organ, in place of the vox humana. In the swell, there were originally 8 unison reeds (hautboy, trumpet, and French horn), but there are now but 2. The organ was repaired in 1796 by Lincoln, and underwent a second renovation in 1816. About the year 1847, it received the important addition of a pedal diapason to GGG, which was added by Holdich, of London.

GREAT ORGAN.
GG to E in alt.

1. Open Diapason
2. Ditto ditto
3. Stopped ditto
4. Principal
5. Ditto
6. Twelfth
7. Fifteenth
8. Ditto
9. Sesquialtera, 4 ranks
10. Cornet to C, 5 ranks
11. Trumpet
12. Clarion

CHOIR ORGAN.
GG to E in alt.

1. Dulciana
2. Stopped Diapason
3. Claribella
4. Principal
5. Flute
6. Fifteenth
7. Bassoon up to middle G

SWELL ORGAN.
Tenor F to E in alt.

1. Open Diapason
2. Stopped ditto
3. Principal
4. German Flute
5. Cornet, 4 ranks
6. Trumpet
7. Hautboy

PEDAL ORGAN.

Open Diapason to GGG, 21½ feet in length

Compass of Pedals down to GG

COUPLERS.

1. Swell to Great
2. Pedals to Choir
3. Ditto to Great

The swell clavier descends to GG, and acts on the bass of the choir stopped diapason, dulciana, and flute, below tenor F, which are made to draw separately and independently for that purpose, whereby the apparent number of sounding stops is increased from 27 to 30. This is the first English organ that had a dulciana; a stop that, in this example, runs through to GG in metal.

The College of St. Peter, Radley, near Oxford.

The organ in this college was built by Messrs. Telford and Telford, Dublin.

GREAT ORGAN.
CC to G in alt.

		FEET.
1.	Double Open Diapason, metal	16
2.	Open Diapason, large, ditto	8
3.	Ditto ditto, small, ditto	8
4.	Stopped ditto.....wood	8
5.	Quint .....metal	5
6.	Principal, large scale, ditto	4
7.	Ditto, small ditto, ditto	4
8.	Tenth .....ditto	3
9.	Twelfth ....ditto	2½
10.	Octave Flute.....wood	2
11.	Fifteenth ....metal	2
12.	Sesquialtera, 4 ranks, ditto	
13.	Mixture, 3 ranks .....ditto	
14.	Double Trumpet ... ...ditto	16
15.	Trumpet.....ditto	8
16.	Clarion ....ditto	4

CHOIR ORGAN.
CC to G in alt.

1.	Stopped Diapason ...wood	8
2.	Dulciana ... .metal	8
3.	Viol di Gamba .....ditto	8
4.	Principal ....ditto	4
5.	Wald Flute.....wood	4
6.	Fifteenth ....metal	2
7.	Cremona.....ditto	8

SWELL ORGAN.
CC to G in alt.

1.	Double Diapason, metal and wood	16
2.	Open Diapason .....metal	8
3.	Dulciana ....ditto	8
4.	Stopped Diapason.....wood	8
5	Principal ... .metal	4
6.	Ditto, small scale...ditto	4
7.	Twelfth .....ditto	2½
8.	Fifteenth ....ditto	2
9.	Twenty-second.....ditto	1
10.	Sesquialtera, 3 ranks, metal	
11.	Cornet Dulciana, 3 ranks, metal	
12.	Trumpet.....ditto	8
13.	Oboe ....ditto	8

PEDAL ORGAN.
CCC to G, 32 Notes.

1.	Double Open Diapason, wood	16
2.	Ditto ditto ditto ...metal	16
3.	Open Diapason .....ditto	8
4.	Principal .... ditto	4
5.	Twelfth ....ditto	2½
6.	Fifteenth ....ditto	2
7.	Sesquialtera, 4 ranks, ditto	
8.	Double Trumpet .....ditto	16
9.	Trumpet.....ditto	8

ACCESSORY STOPS, ETC.

1. Swell to Great
2. Ditto to Choir
3. Ditto to Pedals
4. Great to ditto
6 Composition Pedals

NUMBER OF PIPES.

Great Organ ... .1146	
Choir Organ 356	
Swell Organ 947	
Pedal Organ 384	
Total Number of Pipes...	2833

NUMBER OF STOPS.

Great Organ	16
Choir Organ	7
Swell Organ	13
Pedal Organ	9
Couplers..... ...	4
Total Number of Stops...	49

Romsey Abbey Church, Hampshire.

The following is a description of the large organ built by Mr. J. W. Walker, of Francis Street, Tottenham Court Road, London, for Romsey Abbey Church, Hampshire, in 1858. The whole of the metal pipes are made of fine spotted metal. The exterior case is to be completed at a future time.

GREAT ORGAN.
CC to G in alt. 56 Notes.

FEET.	PIPES.
16 tone. Double Stopped Diapason	56
8. Open Diapason, large	56
8. Ditto ditto	56
8. Claribella to Tenor C	44
8 tone. Stopped Diapason	56
4. Principal	56
4. Flute	56
2⅔. Twelfth	56
2. Fifteenth	56
1⅗. Tierce	56
Mixture, 3 ranks	168
8. Trumpet	56

CHOIR ORGAN.
CC to G in alt. 56 Notes.

8. Dulciana	56
8 tone. Gamba	56
8 tone. Stopped Diapason	56
4. Principal	56
4. Flute	66
8. Cremona to Tenor C	44

SWELL ORGAN.
CC to G in alt. 56 Notes.

16 tone. Double Diapason	56
8. Open Diapason	56
8 tone. Stopped Diapason	56
4. Principal	56
2. Fifteenth	56
Mixture, 3 ranks	168
8. Cornopean	56
8. Hautboy	56
4. Clarion	56

PEDAL ORGAN.
CCC to Tenor F, 30 Notes.

FEET.	PIPES.
16. Open Diapason	30
16 tone. Bourdon	30
8. Octave, wood	30
Mixture, 3 ranks	90
16. Trombone	30
8. Trumpet	30

ACCESSORY STOPS, ETC.

1. Swell to Great
2. Choir to ditto
3. Swell to Choir
4. Ditto to Pedals
5. Great to ditto
6. Choir to ditto
8 Composition Pedals

NUMBER OF PIPES.

Great Organ	772
Choir Organ	324
Swell Organ	616
Pedal Organ	240
Total Number of Pipes	1952

NUMBER OF STOPS.

Great Organ	12
Choir Organ	6
Swell Organ	9
Pedal Organ	6
Couplers	6
Total Number of Stops	39

Parish Church, Boston, Lincolnshire.

The old organ in the parish church, Boston, Lincolnshire, is supposed to have been built in the middle of the 17th century, and it is not known with certainty who was the builder, but it is generally acknowledged that it "is unsurpassed in England for the exquisite purity and mellowness of its old diapasons."

In 1863, it underwent a course of repairs and alterations by Hill and Son, who introduced many mechanical improvements, such as a lieblich gedact in the choir organ, carrying the cremona down to tenor C, and adding a new coupling action between the swell and great organs.

The following is a list of its stops and pipes:

GREAT ORGAN.
CC to F in alt. 54 Notes.

FEET TONE.	PIPES.
8. Open Diapason, Front	54
8. Ditto ditto, Back	54
8. Stopped ditto	54
4. Principal	54
4. Flute à Bec	46
8. Claribella	30
3. Twelfth	54
2. Fifteenth	54
Sesquialtera, 3 ranks	162
Mixture, 2 ranks	108
Cornet	30
8. Trumpet	54

CHOIR ORGAN.
CC to F in alt. 54 Notes.

8. Dulciana, Bass	47
8. Lieblich Gedact, or Stopped Diapason (wood & metal)	54
4. Principal	54
4. Flute	54
8. Cremona	42

SWELL ORGAN.
Tenor C to F in alt. 42 Notes.

16. Double Diapason	42
8. Open ditto	42
8. Stopped ditto	42
4. Principal	42
2. Fifteenth	42
Cornet, 2 ranks	84
8. Cornopean	42
8. Hautboy	42
4. Clarion	42

PEDAL ORGAN.
CCC to E, 29 Notes.

16. Diapason	29
16. Bourdon	29
16. Trumpet	29

ACCESSORY STOPS, ETC.

1. Swell to Great
2. Great to Pedals
3. Choir to ditto
3 Composition Pedals to Great
Tremulant to Swell

NUMBER OF PIPES.

Great Organ	754
Choir Organ	251
Swell Organ	420
Pedal Organ	87
Total number of Pipes	1512

NUMBER OF STOPS.

Great Organ	12
Choir Organ	5
Swell Organ	9
Pedal Organ	3
Couplers	3
Total Number of Stops	32

Trinity College, Cambridge.

The organ in Trinity College chapel, Cambridge, was built by Father Schmidt in 1708, when Dr. Bentley was master of the college. Schmidt died before the instrument was finished; as it is stated, in Bishop Monk's Life of Dr. Bentley, that "he [Schmidt] did not live to complete the organ of Trinity; it was finished, by tuning and voicing, by his son-in-law, Christopher Schreider, according to a resolution of the Master and Seniors, May 3, 1708." A swell was afterwards added by Byfield; a small set of pedal pipes added by Avery (or Avory); and subsequently Messrs. Flight and Robson repaired and made considerable alterations, by cutting the pipes, to render the pitch sharper, as it is generally known that all Schmidt's organs were much below concert pitch. An apparatus was also added to the bellows for the purpose of steadying the wind, and which was the precursor of the concussion bellows. The organ was considerably enlarged by Gray in 1834, who extended the great organ from the original GG to CCC, 16 feet compass. Since then Hill has introduced a new key-board, a larger and more effective swell, and put new sound-boards to the great organ, the original ones by Father Smith having become crazy and decayed by age. The whole of these latter improvements were made under the direction of the late Dr. Walmisley, the then organist.

GREAT ORGAN.
CCC to F in alt.

1. Double Diapason, Open metal to Gamut G, Stopped to the CC key
2. Open Diapason down to CCC
3. Stopped ditto to GG
4. Gamba to CC
5. Salcional to CC
6. Quint to CC
7. Wald Flute
8. Principal throughout
9. Twelfth ditto
10. Fifteenth ditto
11. Sesquialtera. 3 ranks, ditto
12. Mixture, 2 ranks, ditto
13. Trumpet ditto
14. Clarion ditto

CHOIR ORGAN.
GG to F in alt.
1. Open Diapason
2. Stopped ditto
3. Dulciana
4. Flute
5. Principal
6. Cremona

SWELL ORGAN.
Gamut G to F in alt.
1. Stopped Double Diapason
2. Open Diapason
3. Stopped ditto
4. Principal
5. Sesquialtera, 3 ranks
6. Hautboy
7. Trumpet
8. Clarion

PEDAL ORGAN.
Sub-Bourdon, 32 feet tone, CCC to Tenor C, 2 Octaves

ACCESSORY STOPS, ETC.
1. Swell to Great
2. Choir to Pedals, 16 feet pitch
3. Great to ditto, 8 „ „
4. Choir to ditto, 16 „ „
5. Ditto to ditto, 2 „ „
Tremblant & 4 Composition Pedals

St. John's College, Cambridge.

The organ in this chapel was built by Hill in 1839. It is not completed, preparation being made for 5 more stops, which will be added when the new chapel is built.

GREAT ORGAN.
FFF to F in alt.
1. Open Diapason
2. Stopped ditto
3. Double Dulciana
4. Principal
5. Flute
6. Claribella
7. Twelfth and Fifteenth in one slide
8. Fifteenth (No. 2)
9. Sesquialtera
10. Trumpet

CHOIR ORGAN.
FFF to F in alt.
1. Open Diapason throughout
2. Stopped ditto
3. Dulciana
4. Flute
5. Principal
6. Cremona

SWELL ORGAN.
FF to F in alt.
1. Open Diapason
2. Stopped ditto
3. Dulciana
4. Principal
5. Harmonica
6. Sesquialtera, 4 ranks
7. Hautboy
8. French Horn
9. Clarion

PEDAL ORGAN.
Open Diapason to FFF

COUPLERS.
1. Swell to Great
2. Octave Swell to Great
3. Choir to Great

Parish Church of St George, Doncaster.

The organ that stood in the parish church of St. George, Doncaster, previous to its destruction by fire, which took place on the 27th of February, 1853, was so magnificent an

instrument as to merit particular notice, and was generally considered "one of the finest ever built."

The original organ was built in 1789-40, by John Harris and Byfield. It originally contained 28 stops, all of which were retained on account of their surprising quality, and remarkable alike for the freshness and beauty of their tones. In the following account the old stops are distinguished by asterisks. In 1758, the celebrated builder, Snetzler, repaired and tuned the organ, and the instrument had been enlarged at different periods: by Donaldson of York, in 1802; Mr. Buckingham of London, in 1822; Mr. Ward of York, in 1835; and Mr. Brown of Doncaster, in 1841. Mr. Brown added the large swell, and the back great organ. In 1852, the organ was removed to the north chapel of the chancel, by Messrs. Hill and Son, of London, who were "instructed to carry the pedal organ down to CCCC. The removal had just been effected, and the pedal work was on the point of completion, when the fire occurred which in a few short hours swept away every vestige of the noble instrument." We give a list of its stops and pipes.

GREAT ORGAN.
GG to F in alt.

1. Double Open Diapason, 16 feet, Treble (wood)
2. Ditto ditto ditto, Bass
3. Double Stopped Diapason, 16 feet
* 4. Open Diapason, Front
* 5. Ditto ditto, Back
* 6. Stopped ditto
* 7. Principal, Front
8. Ditto, Back
* 9. Twelfth
*10. Fifteenth
*11. Tierce
*12. Sesquialtera, 5 ranks
13. Mixture, 6 ranks
14. Furniture, 3 ranks
15. Mixture, 2 ranks
16. Bombarde, 16 feet
*17. Trumpet, Front
*18. Ditto, Back
*19. Clarion
*20. Cornet (mounted), middle C to F

CHOIR ORGAN.
GG to F in alt.

* 1. Stopped Diapason
2. Dulciana
3. Open Diapason
* 4. Principal
* 5. Flute
6. Cremona
* 7. Bassoon, Bass

SWELL ORGAN.

1. Double Stopped Diapason to C, 16 feet (wood)
* 2. Open Diapason, ditto (metal)
* 3. Stopped ditto throughout (metal)
* 4. Principal ditto
5. Flute ditto
6. Twelfth ditto
* 7. Fifteenth (metal)
8. Sesquialtera, 3 ranks, ditto
9. Mixture, 3 ranks, ditto
10. Double Trumpet to Gamut G, 16 feet
11. French Horn, throughout
12. Cornopean, ditto
*13. Trumpet ditto
*14. Hautboy ditto
15. Clarion ditto
*16. Vox Humana ditto
17. Tremulant

PEDAL ORGAN.

2 Octaves and a third.

	FEET.
1. Principal, CCCC, 18 by 21 inches	32
2. Principal, CCC	16
3. Bourdon	16
4. Principal	8
5. Fifteenth	4
6. Bombarde	16
7. Trombone	8

COUPLERS.

1. Pedals to Great
2. Ditto to Choir
3. Ditto to Swell
4. Octave Pedals to Great
5. Swell to Great
6. Ditto to Choir
7. Back Great Organ to Choir
8. Coupler to connect Front and Back Organs

NUMBER OF PIPES.

Great Organ	1776
Choir Organ	406
Swell Organ	1073
Pedal Organ	203
Total Number of Pipes...	3458

NUMBER OF STOPS.

Great Organ	26
Choir Organ	7
Swell Organ	17
Pedal Organ	7
Couplers	8
Total Number of Stops...	59

The fifteenth and vox humana in the swell we believe originally belonged to the choir organ, as erected by Harris and Byfield.

In 1857, an order was given to Herr Edmund Schulze, the celebrated organ builder of Paulenzelle, near Erfurt, to erect a new organ, under the direction of Mr. Jeremiah Rogers, the organist. This organ was completed and erected in the church in 1862, and, without descanting on the merits of Herr Schulze's work, which no doubt is very fine and beautiful, we consider it to be much too large an organ for any useful purpose, either for the service of the church, or classical organ playing. The pedal organ alone, of 25 stops! is enormous. The following is a list of its stops.

GREAT ORGAN.
CC to A in alt. 58 Notes.

	FEET.
1. Sub Bourdon to Tenor C	32
2. Double Open Diapason	16
3. Bourdon	16
4. Open Diapason	8
5. Octave	8
6. Hohl Floete	8
7. Stopped Diapason	8
8. Great Quint	5⅓
9. Principal	4
10. Gemshorn	4
11. Stopped Flute	4
12. Twelfth	2⅔
13. Fifteenth	2
14. Mixture, 5 ranks	
15. Cymbal, 3 to 5 ranks	
16. Cornet to Tenor C, 4 ranks	
17. Double Trumpet	16
18. Trumpet	8
19. Posaune	8
20. Horn	8
21. Clarion	4

CHOIR ORGAN.
CC to A in alt. 58 Notes.

1. Lieblich Gedact	16
2. Geigen Principal	8
3. Viol di Gamba	8
4. Flauto Traverso	8
5. Salcional	8
6. Lieblich Gedact	8
7. Geigen Principal	4
8. Lieblich Flute	4
9. Flauto Traverso	4
10. Quintatoen	4
11. Flautino	2
12. Mixture, 3 ranks	
13. Clarionet	8

SWELL ORGAN.
CC to A in alt. 58 Notes.

1. Bourdon	16
2. Open Diapason	8
3. Gemshorn	8
4. Terpodion	8
5. Harmonic Flute	8
6. Rohr Flute	8
7. Principal	4
8. Harmonic Flute	4
9. Stopped Flute	4

	FEET.
10. Viol d' Amour	4
11. Mixture, 5 ranks	
12. Scharf, 3 ranks	
13. Cornet to Tenor C, 4 ranks	
14. Double Bassoon	16
15. Hautboy	8
16. Trumpet	8
17. Horn	8
18. Clarion	4

SOLO ORGAN.
Most of which is taken from the Swell.
CC to A in alt. 58 Notes.

1. Gemshorn	8
2. Harmonic Flute	8
3. Rohr Floete	8
4. Harmonic Flute	4
5. Stopped Flute	4
6. Double Bassoon	16
7. Hautboy	8
8. Horn	8
9. Vox Humana	8

ECHO ORGAN.
CC to A in alt. 58 Notes.

1. Tibia Major	16
2. Vox Angelica	8
3. Harmonica	8
4. Flauto Traverso	8
5. Flauto Amabile	8
6. Celestina	4
7. Flauto Dolcissimo	4
8. Harmonica Ætheria, 2 ranks	

PEDAL ORGAN.
CCCC to E, 29 Notes.

1. Sub Principal	32
2. Major Bass	16
3. Principal, Bass	16
4. Sub Bass	16
5. Open Diapason, Bass	16
6. Violone	16
7. Minor Bass	8
8. Octave Bass	8
9. Violoncello	8
10. Flute, Bass	8
11. Great Quint	10⅔
12. Quint, Bass	5⅓
13. Great Tierce	6⅖
14. Fifteenth, Bass	

	FEET.
15 Tierce	3⅕
16. Mixture, 2 ranks	
17. Cymbal, 2 ranks	
18. Contra Posaune	32
19. Posaune	16
20. Bombarde	16
21. Contra Fagotto	16
22. Trumpet	8
23. Horn	8
24. Fagotto	8
25. Clarion	4

ACCESSORY STOPS, ETC.

1. Great to Pedals
2. Swell to Great
3. Choir to ditto
4. Tremulant for Swell

} By Pedal

5. Thunder Stop
6 and 7. Combination Stops for the Great Organ
8. Combination for the Pedals
9 and 10. Combination Stops for the Swell Organ
11. Combination for Choir Organ

The Parish Church, Ashton-under-Line.

The splendid organ in the parish church, Ashton-under-Line, was the noble gift of Edward Brown, Esq. of the Firs, and was built by Hill in 1845. The following are its contents.

GREAT ORGAN.
CC to F in alt. 54 Notes.

FEET.	PIPES.
16. Tenoroon Diapason	42
16 tone. Bourdon, CCC to B	12
8. Open Diapason	54
8. Ditto ditto	54
8 tone. Stopped Diapason to Tenor C	42
8 tone. Ditto ditto, Bass	12
5⅓. Quint	54
4. Principal	54
4. Wald Flute to Tenor C	42
Tenth	54
2⅔. Twelfth	54
2. Fifteenth	54
1⅗. Tierce	54
1⅓. Sesquialtera, 3 ranks	162
½. Mixture, 3 ranks	162
1. Doublette, 2 ranks	108
16. Tenoroon Trumpet	42
16. Double Trumpet, CCC to BB	12
8. Posaune	54
4. Clarion	54
2. Octave Clarion	54

CHOIR ORGAN.
CC to F in alt. 54 Notes.

8. Open Diapason	54
8. Claribel to Tenor C	42
8. Viol di Gamba to Tenor C	42
8 tone. Stopped Diapason, Bass	12
4. Principal	54
4. Oboe Flute to Tenor C	42
4 tone. Stopped Flute to Tenor C	42
2. Fifteenth	54
2. Piccolo to Tenor C	42
8 tone. Cremona to Tenor C	42

SWELL ORGAN.
CC to F in alt. 54 Notes.

16. Tenoroon Dulciana	42
16 tone. Bourdon, CCC to BB	12
8. Open Diapason	54
8. Echo Dulciana to Tenor C	42
8 tone. Stopped Diapason, Treble	42
8 tone. Ditto ditto, Bass	12
4. Principal	54
4. Suabe Flute to Tenor C	42
2⅔. Twelfth	54
2. Fifteenth	54
2. Flageolet to Tenor C	42
1⅗. Sesquialtera, 3 ranks	162
½. Mixture, 2 ranks	108
Echo Dulciana Cornet to Tenor C, 5 ranks	210
16. Tenoroon Trumpet to Tenor C	42

PIPES.

pean	54
....	54
n	54
PEDAL ORGAN.	
o Tenor D, 27 Notes.	
Diapason.....	27
Bourdon	27
ipal	24
nth	27
ire, 5 ranks.....	135
none	27
MASONRY STOPS, ETC.	
rs	
sition Pedals	
e Pedal	

NUMBER OF PIPES.

Great Organ	1230
Choir Organ	426
Swell Organ	1124
Pedal Organ	270
Total Number of Pipes...	3060

NUMBER OF STOPS.

Great Organ	21
Choir Organ	10
Swell Organ	18
Pedal Organ	6
Couplers.....	8
Total Number of Stops...	63

Congregational Church, Halifax.

organ in the congregational church, Halifax, was r Messrs. Holt and Joy, of Leeds, in 1857, at the about £1000. The following is the builders' de- of the instrument.

GREAT ORGAN.
CC to ♂ in alt.

on and Double Diapason
Diapason
ditto
ed ditto

ipal
Flute
th
nth
laltera
ire
pet
n

CHOIR ORGAN.
CC to G in alt.

Diapason
ped Diapason, Bass
bel Diapason, Treble
l Gamba
Flute
horn
na

SWELL ORGAN.
CC to G in alt.

1. Double Diapason
2. Open ditto
3. Stopped ditto
4. Principal
5. Fifteenth
6. Mixture
7. Cornopean
8. Oboe

PEDAL ORGAN.
CCC to E.

	FEET.
1. Violon	16
2. Open Diapason	16
3. Trombone	16
4. Double Diapason	32

COUPLERS.

1. Swell to Great
2. Ditto to ditto, Octave
3. Ditto to ditto, Sub Octave
4. Ditto to Choir (Storsando Pedal)
5. Ditto to Pedals
6. Great to ditto
7. Choir to ditto
8. Pedals in Octaves

Harrison-Road Chapel, Halifax.

This organ was built by Messrs. Holt (then of Halifax, now of Bradford) in 1838. It has 3 sets of keys, viz. great and choir organs from GG, including GG sharp, to F in alt. and swell from tenor C to F in alt. 8 octaves and a half, with 2 octaves of pedals, CCC to tenor C, and pedal pipes from GGG to CC.

GREAT ORGAN.

1. Open Diapason
2. Ditto ditto
3. Stopped ditto
4. Principal
5. Twelfth
6. Fifteenth
7. Sesquialtera
8. Cornet
9. Trumpet, Treble
10. Ditto, Bass

CHOIR ORGAN.

1. Stopped Diapason
2. Dulciana
3. Principal
4. Flute
5. Cremona
6. Fifteenth

SWELL ORGAN.

1. Double Stopped Diapason
2. Stopped Diapason
3. Principal
4. Dulciana
5. Hautboy
6. Trumpet

PEDAL ORGAN.

Double Open Diapason to GGG, 21½ feet in length
Pedal Clavier down to CCC

COUPLERS.

1. Pedals to Great
2. Ditto to Choir
3. Swell to Great
4. Ditto to Choir

St. Mary's Church, Honley.

The organ in St. Mary's church, Honley, was erected in 1859, by Messrs. Kirtland and Jardine, of Manchester. As this organ possesses many peculiarities in its construction, and several excellent features in its specification, it has been thought that a list of the stops, and a few particulars connected with the instrument, will be interesting to the admirers of a complete organ.

One of the peculiarities to be noticed in the construction of this instrument is, that all the interior pipes stand directly over the air-chambers, from which they are supplied *with wind*, thus securing for them a full tone and prompt

intonation. The manual and pedal movements are made on the plan known as "The Simplification System," by which the number of centres is considerably lessened, and the friction consequently reduced, at the same time rendering the touch prompt and elastic.

It will be seen from the list of stops that great care has been exercised in their selection, to avoid useless repetitions, and to adopt such as would individually give distinct qualities of sound, and, in conjunction, produce combinations charming and grateful to the ear.

Attention has also been paid, in the scaling and voicing of the various stops, to secure the desired qualities of tone. The scale of the spitz flöte, 8 feet, gedact, 8 feet, and gemshorn, 4 feet, in the swell; also the open diapason, 16 feet, and bourdon, 16 feet, are from the German, the latter being smaller than those generally in use by English organ builders. The viola di gamba, 8 feet, stopped diapason, 8 feet, and the flute, 4 feet, in the choir, are imitations from the French. The organ is tuned on the system termed "Equal Temperament." It may be added that it was presented to the church by Miss Marshall, of Northgate Mount, Honley.

GREAT ORGAN.
CC to G in alt. 56 Notes.

	FEET.
1. Double Open Diapason	16
2. Open Diapason	8
3. Stopped ditto	8
4. Principal	4
5. Twelfth	2⅔
6 Fifteenth	2
7. Sesquialtera	
8. Trumpet	8

CHOIR ORGAN.
CC to G in alt. 56 Notes.

	FEET.
1. Dulciana	8
2. Stopped Diapason, Bass 3. Ditto ditto, Treble	8
4. Viol di Gamba	8
5. Claribella Flute	4
6. Clarionet to Tenor C	8

SWELL ORGAN.
CC to G in alt. 56 Notes.

	FEET.
1. Bourdon	16
2. Spitz Flöte	8
3. Gedact	8
4. Gemshorn	4
5. Fifteenth	2
6. Mixture	
7. Contra Fagotto	16
8. Cornopean	8
9. Oboe	8
10. Clarion	4

PEDAL ORGAN.
CCC to Tenor F, 30 Notes.

	FEET.
1. Grand Open Diapasan	16
2. Grand Bourdon	16

ACCESSORY STOPS, ETC.

1. Swell to Great
2. Choir to ditto
3. Swell to Pedals
4. Great to ditto
5. Choir to ditto
6 Clochette
4 Combination Pedals to change the stops

Buxton-Road Chapel, Huddersfield.

The organ in this chapel was built by T. J. Robson, of London, and consists of 3 manuals, great, choir, and swell, with an independent pedal organ. In its construction it has been a special object to embody as many of the finest features of the German and English instruments as could conveniently be introduced. The manual organs are of the full compass, and the pedal organ (a department which is too often limited, and consequently defective either in range, number of stops, or both) is of ample and corresponding proportions.

GREAT ORGAN.
CC to C in alt. 61 Notes.

	FEET.
1. Double Open Diapason, metal throughout	16
2. Large Open Diapason.....	8
3. Open Diapason.....	8
4. Stopped ditto, 8 feet tone	
5. Quint	6
6. Principal	4
7. Wald Flute	4
8. Twelfth	3
9. Fifteenth	2
10. Piccolo	2
11. Sesquialtera, 3 ranks.....	1½
12. Mixture, 2 ranks	½
13. Furniture, 3 ranks	
14. Trumpet	8
15. Clarion	4

CHOIR ORGAN.
CC to C in alt. 61 Notes.

1. Stopped Diapason and Claribella, 8 feet tone	
2. Dulciana	8
3. Viol di Gamba.....	8
4. *Principal*	4

SWELL ORGAN.
CC to C in alt. 61 Notes.

	FEET.
1. Double Diapason, 16 feet tone	
2. Open ditto.....	8
3. Stopped ditto, 8 feet tone	
4. Viol di Gamba.....	8
5. Principal	4
6. Fifteenth	2
7. Sesquialtera, 3 ranks.....	1½
8. Contra Fagotto.....metal	16
9. Clarionet and Corni di Bassetto	8
10. Hautboy	8
11. Horn	8
12. Clarion	4

PEDAL ORGAN.

The Compass of the Pipes, CCC to F, 42 Notes, three and a half Octaves, the upper Octave being added for the purpose of completing the Octave Coupler, whereby the effect of 18 Stops is gained throughout the Pedal range

	FEET.
1. Open Diapason	16
2. Violone, 16 feet tone	
3. Principal	8
4. Quint	6
5. Fifteenth	4
6. Sesquialtera, 5 ranks.....	3½
7. Posaune .....metal	16
8. Trumpet	8
9. Clarion	4

ACCESSORY STOPS, ETC.

1. Swell to Great
2. Great to Pedals
3. Choir to ditto
4. Octave Pedals
6 Composition Pedals

NUMBER OF PIPES.

Great Organ	1232
Choir Organ	854
Swell Organ	220
Pedal Organ	546
Total Number of Pipes...	2852

NUMBER OF STOPS.

Great Organ	15
Choir Organ	12
Swell Organ	4
Pedal Organ	9
Couplers.....	4
Total Number of Stops...	44

All Saints' Church, Huntingdon.

The following is a description of the organ built by Messrs. Bryceson, Brothers, for All Saints' Church, Huntingdon.

GREAT ORGAN.
CC to G in alt.

FEET.	PIPES.
16. Bourdon and Double Open Diapason ...wood & metal	56
8. Great Open Diapason, metal	56
8. Horn ditto ditto... ...wood and metal	56
4. Principal ....metal	56
3. Twelfth ....ditto	56
2. Fifteenth ....ditto	56
Mixture, 2 ranks..... ditto	112
8. Posaune .....ditto	56
4. Clarion ....ditto	56

CHOIR ORGAN.
CC to G in alt.

8. Violin Open Diapason, metal	56
8 Gamba ....ditto	44
8. Rohr Flöte.....ditto	44
8. Stopped Bass.....wood	12
4. Dulcet.....metal	56
4. Harmonic Flute ... ...ditto	56
8. Clarionet and Bassoon, ditto	56

SWELL ORGAN.
CC to G in alt.

FEET.	PIPES.
16. Bourdon and Double Diapason.....wood and metal	56
8. Open Diapason .....metal	56
8. Keraulophon .....ditto	44
8. Echo Dulciana .....ditto	44
8. Lieblich Gedact ... ...ditto	44
8. Stopped Bass ....wood	12
4. Principal ....metal	56
4. Gedact Flöte.....ditto	56
Full Mixture, 2 ranks, ditto	224
8. Oboe ....ditto	56
8. Cornopean .....ditto	56
4. Clarion ....ditto	56

PEDAL ORGAN.
CCC to F.

16. Grand Open Diapason, wood	30
16. Grand Bourdon.....ditto	30
8. Grand Octave ....metal	30
16. Grand Trombone (prepared for) ....ditto	18

ACCESSORY STOPS, ETC.
1. Swell to Great
2. Ditto to Pedals
3. Great to Pedals
4. Choir to ditto
3 Composition Pedals to Great
3 „ „ to Swell
Tremulant, with bar

NUMBER OF PIPES.	
Great Organ	560
Choir Organ	324
Swell Organ	760
Pedal Organ	120
Total Number of Pipes...	1764

NUMBER OF STOPS.	
Great Organ	9
Choir Organ	7
Swell Organ	12
Pedal Organ	4
Couplers	4
Total Number of Stops...	36

St. George's Hall, Liverpool.

The fine and beautiful-toned organ in St. George's Hall, Liverpool, which is one of the largest yet constructed in England, was built by Mr. Henry Willis, under the direction of Dr. S. S. Wesley, and contains 100 sounding stops.

The instrument consists of 4 rows of keys, from G to A, i. e. GG to A in alt. 68 notes; and 2 octaves and a half of pedals, from C to F, i. e. CCC to F, 30 notes. There are 108 stops, and 8,000 pipes, varying in length from 32 feet to three-eighths of an inch, 10 octaves apart. The grand source of wind is from 2 immense bellows, each having 3 feeders, placed in the vaults below the floor of the hall. These are blown by a steam engine, consisting of a pair of oscillating cylinders. There are, besides, 12 other bellows, or reservoirs, each giving its own appropriate pressure of air to those stops or pipes which it supplies. The pneumatic lever is applied to each of the manuals distinctly, and also distinctly or separately to the manual couplers. To the pedal organ there is a double set of pneumatic levers; but the most elaborate use of this power is found in its application to the combination of stops. The pneumatic lever is also

applied to the opening and shutting of the swell louvres, and some other less important purposes. The very extensive use Mr. Willis has made of this extraordinary power seems to have rendered any deviation from the ordinary valves, in immediate connection with the pipes, unnecessary, excepting in the pedal organ, where the large pipes have a very peculiar valve for their supply, which is a quiet sound, and free from the resistance resulting from the compressed air.

The pedal board is a most ingenious contrivance of Dr. Wesley. The pedals radiate to a point some distance behind the player, and are circular in plan and conically segmental in elevation. The mode of drawing the stops is different from most organs, each knob, which is of solid ivory, presenting itself at an angle of about 30 degrees. By this arrangement, with that of the pedals and the combi nation movements, the player has remarkable control over the instrument.

GREAT ORGAN.

	FEET.
1. Double Diapason	16
2. Open ditto	8
3. Ditto ditto	8
4. Ditto ditto	8
5. Ditto ditto wood	8
6. Stopped ditto	8
7. Principal	4
8. Ditto	4
9. Quint	6
10. Flute	4
11. Twelfth	3
12. Tenth	
13. Fifteenth	2
14. Ditto	2
15. Doublette, 2 ranks	
16. Sesquialtera, 6 ranks	
17. Mixture, 4 ranks	
18. Furniture, 4 ranks	
19. Cymbala, 5 ranks	
20. Posaune	16
21. Ophicleide	8
22. Trombone	8
23. Trumpet	8
24. Clarion	4
25. Ditto	4

CHOIR ORGAN.

	FEET.
1. Double Diapason, Closed, wood	16
2. Open Diapason	8
3. Dulciana	8
4. Viol di Gamba	8
5. Claribella	8
6. Stopped Diapason	8
7. Octave Gamba	4
8. Principal	4
9. Celestina	
10. Flute, Harmonic	4
11. Flageolet	2
12. Twelfth	3
13. Fifteenth	2
14. Mixture, 3 ranks	
15. Cremona	8
16. Trumpet	8
17. Orchestral Oboe to Tenor C	8
18. Clarion	4

SWELL ORGAN.

	FEET.
1. Double Diapason	16
2. Open ditto	8
3. Ditto ditto	8
4. Stopped ditto	8
5. Dulciana	8
6. Principal	4
7. Ditto	4
8. Flute, Open wood	
9. Ditto, Closed ditto	4
10. Twelfth	3
11. Fifteenth	2
12. Ditto	2
13. Doublette, 2 ranks	
14. Piccolo, Open wood	2
15. Sesquialtera, 3 ranks	
16. Mixture, 3 ranks	
17. Furniture, 4 ranks	
18. Trombone	16
19. Contra Hautboy	16
20. Horn	8
21. Trumpet	8
22. Oboe	8
23. Ophicleide	8
24. Clarion	4
25. Ditto	4

SOLO ORGAN.

	FEET.
1. Double Diapason, Closed, wood	16
2. Open ditto ditto	8
3. Stopped ditto	8
4. Flute, Orchestral	4
5. Flageolet	2
6. Oboe, Orchestral, to Tenor C	8
7. Clarionet to Tenor C	8
8. Corni di Bassetto	8
9. Horn	8
10. Ophicleide	8
11. Trombone	8
12 Trumpet	8
13. Trumpet, Harmonic	4
14. Bassoon	8
15. Contra Fagotto	16

PEDAL ORGAN.

	FEET.
1. Double Diapason, Open, wood	32
2. Ditto ditto ditto, metal	32
3. Open ditto wood	16
4. Ditto ditto metal	16
5. Salcional, Open ditto	16
6. Bourdon, Closed wood	16
7. Principal ditto	8
8. Ditto metal	8
9. Quint	6
10. Fifteenth	4
11. Mixture, 3 ranks	
12. Furniture, 5 ranks	
13. Posaune	32
14. Trombone	16
15. Ophicleide	16
16. Trumpet	8
17. Clarion	4

COUPLERS.

1. Swell to Great
2. Choir to ditto
3. Solo to ditto
4. Ditto to Choir
5. Great to Swell
6. Choir to Pedals
7. Great to ditto
8. Swell to ditto
9. Solo to ditto

Collegiate Institution, Liverpool.

This fine organ was built by Mr. Jackson, of Liverpool, in 1850. The pipes are of *spotted metal*, containing at least *half of its* weight of tin, as indicated by the spot.

GREAT ORGAN.
CC to G in alt. 56 Notes.

	FEET.
1. Tenoroon	16
2. Bourdon to meet No. 1, 16 feet tone	
3. Great Open Diapason	8
4. Small ditto ditto	8
5. Stopped Diapason, 8 ft. tone	
6. Principal	4
7. Twelfth	2⅔
8. Fifteenth	2
9. Sesquialtera and Cornet, 3 ranks	
10. Mixture, 3 ranks	
11. Sharp Twentieth	
12. Trumpet	8
13. Clarion	4

CHOIR ORGAN.
CC to G in alt. 56 Notes.

1. Open Diapason	8
2. Stopped Diapason, Bass... }	8
3. Claribella, Treble ... }	
4. Keraulophon	8
5. Dulciana	8
6. Principal	4
7. Flute	4
8. Piccolo	2
9. Fifteenth	2
10. Bassoon }	8
11. Clarionet }	

SWELL ORGAN.
CC to G in alt. 56 Notes.

	FEET.
1. Double Diapason	16
2. Open ditto	8
3. Stopped ditto	8
4. Principal	4
5. Fifteenth	2
6. Echo Dulciana Cornet, 3 ranks	
7. Cornopean	8
8. Oboe	8
9. Clarion	4

PEDAL ORGAN.
CCC to Fiddle G, 32 Notes.

1. Great Open Diapason	16
2. Bourdon	16
3. Principal	8
4. Twelfth	5⅓
5. Fifteenth	4
6. Mixture, 6 ranks	
7. Posaune	16

ACCESSORY STOPS, ETC.

1. Swell to Great
2. Choir to Swell
3. Choir to Great, Sub Octave
4. Swell to Pedals
5. Choir to ditto
6. Great to ditto
7. Super Octave to Pedals
4 Composition Pedals to Great
2 Ditto ditto to Pedals

Christ Church, Preston, Lancashire.

The organ in Christ Church, Preston, Lancashire, was built by Kirtland and Jardine, of Manchester. The mechanism is throughout constructed on the method known as the "Simplification System." The tuning is equal temperament.

GREAT ORGAN.
CC to G in alt. 56 Notes.

	FEET.
1. Double Diapason	16
2. Open Diapason	8
3. Gamba	8
4. Stopped Diapason	8
5. Principal	4
6. Twelfth	2⅔
7. Fifteenth	2
8. Sesquialtera, 3 and 4 ranks	
9. Mixture, 2 and 3 ranks	
10. Trumpet	8
11. Clarion	4

CHOIR ORGAN.
CC to G in alt. 56 Notes.

	FEET.
1. Dulciana	8
2. Gedact	8
3. Viola di Gamba	8
4. Harmonic Flute	4
5. Bassoon and Clarionet	8

SWELL ORGAN.
CC to G in alt. 56 Notes.

1. Bourdon	16
2. Spitz Flöte	8
3. Gedact	8
4. Salcional	8
5. Gemshorn	4
6. Fifteenth	2
7. Mixture, 2 and 3 ranks	
8. Horn	8
9. Oboe	8
10. Clarion	4

PEDAL ORGAN.
CCC to F, 30 Notes.

	FEET.
1. Grand Open Diapason	16
2. Grand Bourdon	16
3. Principal	8
4. Violoncello	8

ACCESSORY STOPS, ETC.

1. Swell to Great, Unison
2. Ditto ditto, Octave
3. Choir to ditto, Sub Octave
4. Swell to Pedals
5. Great to ditto
6. Choir to ditto

6 Composition Pedals

St. Paul's Church, Warrington, Lancashire.

The organ in St. Paul's church, Warrington, Lancashire, was built by Kirtland and Jardine, of Manchester. It is tuned to equal temperament.

GREAT ORGAN.
CC to F in alt. 54 Notes.

	FEET.
1. Double Diapason	16
2. Open ditto	8
3. Stopped ditto	8
4. Principal	4
5. Twelfth	2⅔
6. Fifteenth	2
7. Sesquialtera, 3 and 4 ranks	
8. Trumpet	8

CHOIR ORGAN.
CC to F in alt. 54 Notes.

1. Stopped Diapason	8
2. Viola di Gamba	8
3. Voix Celeste	8
4. Clear Flute	4
5. Clarinet to Tenor C	8

SWELL ORGAN.
CC to F in alt. 54 Notes.

1. Bourdon	16
2. Open Diapason	8
3. Stopped ditto	8
4. Principal	4
5. Fifteenth	2
6. Mixture, 3 ranks	
7. Cornopean	8
8. Oboe	8

PEDAL ORGAN.
CCC to E, 29 Notes.

1. Sub Bass	32
2. Open Diapason	16
3. Violoncello	8
4. Posaune	16

ACCESSORY STOPS, ETC.

1. Swell to Great, Unison
2. Ditto to ditto, Octave
3. Ditto to Pedals
4. Great to ditto
5. Choir to ditto
6. Octave Pedals

6 Composition Pedals

Christ Church, Preston, Lancashire.

The following is a description of a *new* and large organ just built by Kirtland and Jardine, of Manchester, for Christ Church, Preston, Lancashire.*

GREAT ORGAN.
CC to G in alt. 56 Notes.

	FEET.
1. Double Open Diapason	16
2. Stopped Diapason	8
3. Open ditto	8
4. Gamba	8
5. Flute a Pavillon	8
6. Principal	4
7. Flute Harmonique	4
8. Twelfth	2⅔
9. Fifteenth	2
10. Sesquialtera, 3 ranks	2
11. Mixture, 3 ranks	1
12. Trumpet	8
13. Clarion	4

CHOIR ORGAN.
CC to G in alt. 56 Notes.

1. Dulciana	8
2. Viola di Gamba	8
3. Lieblich Gedact	8
4. Voix Celeste	8
5. Rohr Flöte	4
6. Flageolet	2
7. Bassoon and Clarionet	8

SWELL ORGAN.
CC to G in alt. 56 Notes.

1. Bourdon	16
2. Spitz Flöte	8
3. Salcional	8
4. Gedact	8
5. Gemshorn	4
6. Flauto Traverso	4
7. Fifteenth	2
8. Mixture, 4 ranks	
9. Contra Fagotto	16
10. Horn	8
11. Oboe	8
12. Clarion	4

PEDAL ORGAN.
CCC to F, 30 Notes.

1. Open Diapason	16
2. Bourdon	16
3. Principal	8
4. Violoncello	8
*5. Trombone	16
*6. Trumpet	8

The Pipes of the Stops marked * in Pedal Organ will not be put in at present

ACCESSORY STOPS, ETC.

1. Swell to Great, Unison
2. Ditto to ditto, Octave
3. Ditto to ditto, Sub Octave
4. Choir to ditto, Unison
5. Ditto to ditto, Sub Octave
6. Swell to Pedals
7. Great to ditto
8. Choir to ditto
9. Tremulant to Swell
10. Ventil to Great Organ
4 Combination Pedals to Great
4 „ „ to Swell

* The above arrived too late for insertion in its proper place. The organ in Christ Church, Preston, described in pages 167-8, is the one erected by Kirtland and Jardine previously; but whether the one last built is a modification and enlargement of the organ built previously, the editor is not informed.

St. Peter's Chapel, Leeds.

This organ was built by the late Mr. Joseph Booth, of Wakefield.

GREAT ORGAN.
CCC to F in alt. 66 Notes.

1. Double Open Diapason, meets the Pedals (metal)
2. Open Diapason (metal)
3. Ditto ditto (ditto)
4. Stopped ditto
5. Principal
6. Ditto
7. Twelfth
8. Fifteenth
9. Sesquialtera
10. Trumpet
11. Trombone

CHOIR ORGAN.
GG to F in alt.

1. Open Diapason (metal)
2. Stopped ditto
3. Dulciana
4. Principal
5. Flute
6. Bassoon and Cremona

SWELL ORGAN.
CC to F in alt.

1. Double Open Diapason (metal)
2. Open Diapason (metal)
3. Stopped ditto
4. Dulciana
5. Principal
6. Ditto
7. Twelfth
8. Fifteenth
9. Cremona
10. Hautboy
11. Trumpet

PEDAL ORGAN.
2 Octaves.

1. Double Open Diapason down to GGG, 21½ feet
2. Open Diapason
3. Principal

ACCESSORY STOPS, ETC.

1. Great to Pedals
2. Swell to Great
3. Choir to ditto
4 Composition Pedals

Brunswick Chapel, Leeds.

This organ was built by the late Mr. Joseph Booth, of Wakefield.

GREAT ORGAN.
GG to F in alt.

1. Double Open Diapason, 21½ ft. (metal)
2. Open Diapason, 10⅔ ft. (metal)
3. Ditto ditto ditto (ditto)
4. Stopped Diapason
5. Principal
6. Twelfth
7. Fifteenth
8. Sesquialtera, 4 ranks
9. Cornet, 5 ranks
10. Trumpet
11. Clarion

CHOIR ORGAN.
GG to F in alt.

1. Double Dulciana, 16 ft. (metal)
2. Open Diapason, 10⅔ ft. (ditto)
3. Stopped ditto
4. Principal
5. Bassoon
6. Cremona
7. Viol di Gamba
8. Flute

SWELL ORGAN.
CC to F in alt.

	FEET.
1. Double Open Diapason, metal	16
2. Open Diapason .....ditto	8
3. Stopped ditto	8
4. Dulciana ....ditto	8
5. Ciaribella	8
6. Principal	4
7. Viol di Gamba.....	8
8. Cornopean	8
9. Hautboy	8
10. Trumpet	8
11. Cremona, 8 feet tone	
12. Clarion.....	4

PEDAL ORGAN.
CCC, 2 Octaves.

	FEET.
1. Double Open Diapason, wood	32
2. Open Diapason .....ditto	16
3. Principal	8
4. Trombone ....metal	16

COUPLERS.

1. Swell to Great
2. Choir to ditto
3. Ditto to Pedals
4. Great to ditto

Centenary Chapel, Boston, Lincolnshire.

The large organ in the centenary chapel, Boston, Lincolnshire, was built by Gray and Davison in 1850. It has great and choir manuals, from CC, 8 feet, to F in alt.; the pedal organ, 2 octaves and a fourth, compass from CCC, 16 feet, to tenor F; the whole of the stops in this, as well as in the manuals, except the keraulophon and clarionet flute, go throughout. The swell is to tenor C.

There are 2 bellows, 1 for the manuals, the other for the pedal organ; and 4 composition pedals; also the new and effective sforzando pedal.

The sides, as well as the front of the case, contain speaking pipes; and the dimensions of the instrument are, 26 feet high, 23 feet wide, and 18 feet deep. There are 49 stops, and 2,490 pipes.

GREAT ORGAN.

	FEET.
1. Double Open Diapason	16
2. Open Diapason.....	8
3. Ditto ditto	8
4. Stopped ditto	8
5. Quint.....	6
6. Octave	4
7. Flute	4
8. Octave Quint	3
9. Super Octave	2
10. Flageolet	2
11. Sesquialtera, 3 ranks	
12. Furniture, 3 ranks	
13. Posaune	8
14. Clarion	

CHOIR ORGAN.

	FEET.
1. Open Diapason	8
2. Gamba	8
3. Keraulophon	8
4. Stopped Diapason, Bass	8
5. Clarionet Flute	8
6. Octave	4
7. Flute	4
8. Gemshorn	4
9. Super Octave	2
10. Flageolet	2
11. Sesquialtera, 3 ranks	
12. Corno di Bassetto	8

SWELL ORGAN.

1. Bourdon	16
2. Open Diapason	8
3. Stopped ditto	8
4. Octave	4
5. Super Octave	2
6. Sesquialtera, 3 ranks	
7. Contra Fagotte	16
8. Cornopean	8
9. Oboe	8
10. Clarion	4

PEDAL ORGAN.

1. Grand Open Diapason	16
2. Grand Violon	16
3. Grand Bourdon	16
4. Grand Octave	8
5. Grand Super Octave	4
6. Grand Trombone	16

COUPLERS.

1. Swell to Great
2. Choir to ditto
3. Swell to Choir
4. Ditto to Pedals
5. Great to ditto
6. Choir to ditto
7. Sforzando Pedal

St. Peter's Church, Manchester.

The large and fine organ in St. Peter's church, Manchester, was built by Messrs. Kirtland and Jardine, of Manchester, in 1856. It then consisted of great, choir, swell, and pedal organs, containing 50 sounding stops, 8 accessory stops, a tremulant to swell, a sforzando pedal, and 4 composition pedals, and was opened by Mr. E. J. Hopkins, of the Temple church, London. At the beginning of 1863, a fourth manual, for the solo stops, to complete the original specification, was added, together with a grand open diapason, quint, grand principal, and double trumpet in the great organ; and a trumpet and voix humaine (in place of clarionet) in the choir organ. The organ was re-opened by Mr. Best, of St. George's Hall, Liverpool.

"The organ has 72 draw-stops, of which 61 are sounding stops, all of which are of their full compass, not a single stop being divided into treble and bass, so as to appear like two stops. They also exhibit all the important features

introduced of late years by the most celebrated organ builders in France and Germany. As examples of labiate stops hitherto peculiar to continental organs, we have the gamba, the flauto traverso, the hohl flöte, and several other stops, whose names indicate their German origin. The French builders are now enjoying the highest celebrity for the excellence of their reed stops; from them are copied the voix humaine, and the cor anglais; it will be perceived, too, that the harmonic system invented by Cavaille Coll, of Paris, has not been lost sight of, the pipes of the stops thus voiced being twice the length indicated by their tones. Free reeds have to the present time scarcely been seen in English organs; examples of them will be found in the euphone and cor anglais. The Abbé Vogler's simplification system has been adopted throughout, whereby a direct action is established between the keys and pedals and their respective pallets; so that the number of centres is lessened, and consequently the friction is diminished, and much of the liability to disarrangement is removed, whilst the absence of roller-boards permits the whole of the mechanism to be readily examined, and enables any fault to be easily rectified. The sound-boards are constructed of such amplitude that every pipe is placed directly over the valve from which it is supplied with wind; that portion of the pedal violon which stands in the front towers of the case is provided with a pallet under each pipe; and the bass pipes of the open diapasons of the great organ, which stand in the central compartment of the case, have also each a pallet, to avoid conveyances from the great organ chest. The organ is supplied with six different pressures of wind, and the valves being of an improved construction, and being acted upon so directly, present an exceedingly light and agreeable touch.

both to the finger and the foot, without the aid of the pneumatic lever. The instrument is tuned to the equal temperament." The following is a list of the stops, etc.

GREAT ORGAN.
CC to G in alt. 56 Notes.

	FEET.
1. Double Open Diapason	16
2. Grand ditto ditto	8
3. Open Diapason	8
4. Gamba	8
5. Flute a Pavilon	8
6. Stopped Diapason	8
7. Quint	5⅓
8. Grand Principal	4
9. Principal	4
10. Clear Flute	4
11. Twelfth	2⅔
12. Fifteenth	2
13. Full Mixture, 5 ranks	
14 Sharp Mixture, 4 ranks	
15. Double Trumpet	16
16. Trompette Harmonique	8
17. Clarion	4

CHOIR ORGAN.
CC to G in alt. 56 Notes.

1. Bourdon	16
2. Spitzflöte	8
3. Dulciana	8
4. Viola di Gamba	8
5. Gedackt	8
6. Voix Celestes	8
7. Gemshorne	4
8. Flauto Traverso, Harmonic	4
9. Rohr Flöte	4
10. Fifteenth	2
11. Mixture, 4 ranks	
12. Euphone and Bassoon	16
13. Trumpet	8
14. Voix Humaine	8

SWELL ORGAN.
CC to G in alt. 56 Notes.

1. Bourdon	16
2. Open Diapason	8
3. Hohl Flöte	8
4. Stopped Diapason	8
5. Principal	4
6. Gedackt Flöte	4
7. Twelfth	2⅔
8. Fifteenth	2
9. Clear Mixture, 5 ranks	
10. Contra Fagotto	16
11. Cornopean	8
12. Hautboy	8
13. Cor Anglais	8
14. Clarion	4

SOLO ORGAN.

1. Open Diapason, Harmonic	8
2. Concert Flute, Harmonic	4
3. Flageolet, Harmonic	2
4. Tromba	8
5. Corno di Bassetto and Clarionet	8

PEDAL ORGAN.
CCC to Tenor F, 30 Notes.

1. Sub Bass	32
2. Open Diapason	16
3. Violon	16
4. Stopped Diapason	16
5. Grosse Quint	10⅔
6. Principal	8
7. Violoncello	8
8. Twelfth	5⅓
9. Fifteenth	4
10. Posaune	16
11. Trumpet	8

ACCESSORY STOPS, ETC.

1. Solo to Great
2. Swell to ditto, Unison
3. Ditto to ditto, Octave
4. Ditto to ditto, Sub Octave
5. Choir to ditto
6. Solo to Pedals
7. Swell to ditto
8. Great to ditto
9. Choir to ditto
10. Pedal Organ Attachment
11. Clochette

Tremulant to Swell
" to Choir
Sforzando Pedal
4 Combination Pedals to Great
2 " " to Pedals
2 " " to Swell

St. Matthew's Church, Camp Field, Manchester.

The organ in St. Matthew's church, Camp Field, Manchester, was built by Messrs. Kirtland and Jardine. It was originally built for a G organ; but it was found some years ago to be altogether unsuited to the performance of modern compositions, and arrangements and adaptations of the works of the great masters. It was then considered desirable to modernize the instrument, which has just been effected by further extensive alterations and improvements. The organ is tuned on the equal temperament system.

GREAT ORGAN.
CC to F in alt.

	FEET.
1. Double Open Diapason	16
2. Open Diapason (major)	8
3. Ditto ditto (minor)	8
4. Stopped ditto	8
5. Principal	4
6. Flute	4
7. Twelfth	3
8. Fifteenth	2
9. Twenty-second	1
10. Sesquialtera, 4 ranks	
11. Trumpet	8

CHOIR ORGAN.
CC to F in alt.

1. Open Diapason	8
2. Dulciana	8
3. Stopped Diapason	8
4. Viola di Gamba to Tenor C	8
5. Principal	4
6. Flute	4
7. Fifteenth	2
8. Bassoon	8
9. Clarionet	8

SWELL ORGAN.
CC to F in alt.

	FEET.
1. Bourdon	16
2. Spitzflöte	8
3. Gedact	8
4. Gemshorn	4
5. Fifteenth	2
6. Twenty-second	1
7. Cornopean	8
8. Oboe	8
9. Clarion	4

PEDAL ORGAN.
CCC to E.

1. Grand Open Diapason	16
2. Grand Bourdon	16

ACCESSORY STOPS, ETC.

1. Swell to Great
2. Choir to ditto
3. Swell to Pedals
4. Great to ditto
5. Choir to ditto
4 Combination Pedals

Holy Trinity Church, Manchester.

The organ in Holy Trinity church, Manchester, was built by Messrs. Kirtland and Jardine, of Manchester, in 1852.

The keys are 25 feet from the organ, yet the "touch" is *remarkably* crisp, and pleasant to the performer. The keys of the solo, swell, and great organs each project an inch over the keys next below them; by this means the top set (solo) is brought 8 inches nearer to the performer than in keys made in the usual manner. The stops marked * have no pipes in, but are "prepared" to receive them. The following is a list of the stops.

GREAT ORGAN.
CC to F in alt. 54 Notes.

	FEET.
1. Bourdon	16
2. Open Diapason	8
3. Salcional	8
4. Stopped Diapason, Bass 5. Claribella, Treble	8
6. Quint	5⅓
7. Principal	4
8. Clear Flute	4
9. Twelfth	2⅔
10. Fifteenth	2
11. Sesquialtera, 3 ranks	1⅓
12. Mixture, 3 ranks	1
13. Trumpet	8
14. Clarion	4

CHOIR ORGAN.
CC to F in alt. 54 Notes.

*1 Bourdon	16
2. Dulciana	8
3. Stopped Diapason, Bass 4. Ditto ditto, Treble	8
5. Viola di Gamba to Tenor C	8
6. Principal	4
7. Rohr Flute to Tenor C	4
8. Twelfth	2⅔
9. Fifteenth	2
10. Flageolet to Tenor C	2
11. Bassoon and Claribel	8

SWELL ORGAN.
CC to F in alt. 54 Notes.

1. Bourdon	16
2. Open Diapason	8
3. Stopped ditto	8
4. Principal	4
5. Twelfth	2⅔
6. Fifteenth	2
7. Mixture, 3 ranks	1⅓
8. Cornopean	8
9. Hautboy	8
10. Clarion	4

SOLO ORGAN.
Tenor C to F in alt. 42 Notes.

*1. Gamba	8
*2. Vox Angelica	8
*3. Flauto Traverso	4
*4. Flute Harmonique	4
*5. Æoline	8

PEDAL ORGAN.
CCC to F, 30 Notes.

1. Open Diapason	16
2. Stopped ditto	16
3. Quint	10⅔
4. Principal	8
5. Twelfth	5⅓
6. Fifteenth	4
7. Mixture (19, 22, 26, 29)	
*8. Posaune	16
*9. Clarion	8

ACCESSORY STOPS, ETC.

6 Couplers
4 Ventils
6 Composition Pedals

St. Luke's Church, Manchester.

The fine organ in St. Luke's church, Manchester, was built by Hill in 1850.

GREAT ORGAN.
CC to F in alt.

	FEET.
1. Double Open Diapason	16
2. Open Diapason	8
3. Stopped ditto	8
4. Principal	4
5. Fifteenth	2
6. Twelfth	3
7. Sesquialtera, 3 ranks	
8. Mixture, 2 ranks	
9. Octave Fifteenth	1
10. Posaune	8

CHOIR ORGAN.
CC to F in alt.

1. Open Diapason	8
2. Stopped ditto	8
3. Claribella	8
4. Principal	4
5. Dulciana	8
6. Fifteenth	2
7. Oboe Flute	4
8. Wald Flute	4
9. Piccolo	2
10. Cremona	8

SWELL ORGAN.
Tenor C to F in alt.

	FEET.
1. Double Open Diapason	16
2. Open Diapason	8
3. Stopped ditto	8
4. Principal	4
5. Doublette, 2 ranks	2
6. Cornopean	8
7. Oboe	8

PEDAL ORGAN.
1 Octave, CCC to CC.

1. Open Diapason	16
2. Bourdon	16
3. Trombone	16

ACCESSORY STOPS, ETC.

1. Choir to Great
2. Swell to ditto
3. Great to Pedals
4. Choir to ditto
5. Swell to ditto

2 Composition Pedals to Swell
3 „ „ to Great

Free Trade Hall, Manchester.

The fine organ at the Free Trade Hall, Manchester, was built by Messrs. Kirtland and Jardine in 1857. It has 60 draw-stops, of which 52 are sounding stops, several of which are modelled from the inventions of the most celebrated organ builders of France and Germany. The höhl flute, gamba, harmonica, and posaune (16 feet), are from the German; the voix celeste, voix humaine, flute harmonique, euphone, etc. from the French. The posaune, euphone, and harmonica, are "free reeds," which are seldom used in English organs. The organ is constructed on the "Simplification System" invented by the Abbe Vogler, of Mannheim, and introduced into this country by Messrs. Kirtland

and Jardine. By this system every pipe stands directly over the air chamber supplying it with wind. There are 4 wind reservoirs. These are supplied with air by 6 feeders, put in motion by means of 2 hydraulic engines. The various organs have different pressures of wind, and thus the desired intonation and true character of the stops are more perfectly obtained. The pipes are scaled in accordance with the theory of Professor Topfer, of Weimer, and the instrument is tuned on the equal temperament system.

GREAT ORGAN.
CC to G in alt. 56 Notes.

	FEET.
1. Double Open Diapason	16
2. Open Diapason	8
3. Violin ditto	8
4. Höhl flöte	8
5. Open Diapason	8
6. Quint	5⅓
7. Principal	4
8. Gamba	4
9. Clear Flute	4
10. Twelfth	2⅔
11. Fifteenth	2
12. Mixture, 5 ranks	
13. Double Trumpet	16
14. Posaune	8
15. Clarion	4

SWELL ORGAN.
CC to G in alt. 56 Notes.

1. Bourdon	16
2. Open Diapason	8
3. Salcional	8
4. Stopped Diapason	8
5. Dulciana	8
6. Voix Celeste	8
7. Quint	5⅓
8. Principal	4
9. Hohl Flöte	4
10. Rohr Flöte	4
11. Twelfth	2⅔
12. Fifteenth	2
13. Mixture, 5 ranks	
14. Euphone	16
15. Cornopean	8
16. Oboe	8
17. Voix Humaine	8
18. Clarion	4
19. Octave Clarion	2
20. Tremulant	

SOLO ORGAN.
CC to G in alt. 56 Notes.

1. Hohl Flöte	8
2. Gamba	8
3. Corno Dolce	8
4. Flute Harmonique	4
5. Bassoon and Clarionet	8
6. Tuba	8
7. Harmonica	4
8. Tuba	4

PEDAL ORGAN.
CCC to E, 29 Notes.

1. Sub Bass	32
2. Open Diapason	16
3. Bourdon	16
4. Quint	10⅔
5. Principal	8
6. Violoncello	8
7. Twelfth	5⅓
8. Fifteenth	4
9. Posaune	16
10. Trumpet	8

ACCESSORY STOPS, ETC.

1. Swell to Great, Unison
2. Ditto to ditto, Octave
3. Solo to Great
4. Swell to Pedals
5. Great to ditto
6. Solo to ditto
7. Clochette
4 Combination Pedals to Great
2 „ „ to Swell
2 „ „ to Pedals

Mechanics' Hall, Nottingham.

The organ in the Mechanics' Hall, Nottingham, was built by Bevington and Sons in 1849. It originally had 45 sounding stops, to which 8 have since been added by Groves, of London, who removed the choir and swell organs from inside the case to ante-rooms underneath the orchestra. He also arranged the organ on the direct action principle; i. e. placed the great organ sound-board so that its sliders run parallel with the keys, and are therefore brought under control by a simple and direct drow-stop action.

GREAT ORGAN.
CC to G in alt.

	FEET.
1. Tenoroon	16
2. Bourdon, to meet No. 1, 16 feet tone	
3. Open Diapason	8
4. Ditto dittò	8
5. Quint	5½
6. Principal	4
7. Decima	3⅕
8. Stopped Diapason, 8 feet tone	
9. Claribella	8
10. Hohl Flute	8
11. Twelfth	2⅔
12. Fifteenth	2
13. Sesquialtera, 3 ranks	1⅗
14. Mixture, 3 ranks	½
15. Wald Flute	4
16. Posaune	8
17. Trumpet	8
18. Octave Trumpet	4

CHOIR ORGAN.
CC to G in alt.

1. Double Stopped Diapason, 16 feet tone	
2. Keraulophon to Tenor C	8
3. Principal	4
4. Open Diapason	8
5. Dulciana	8
6. Stopped Diapason, 8 feet tone	
7. Viol di Gamba	8
8. Double Bassoon	16
9. Clarionet, 8 feet tone	
10. Oboe	8
11. Claribella	8
12. Flute	4
13. Flageolet	2

SWELL ORGAN.
Tenor C to G in alt.
Each Stop throughout.

1. Great Double Diapason, 32 feet tone	
2. Double Diapason, 16 ft. tone	
3. Open ditto	8
4. Ditto ditto	8
5. Stopped ditto, 8 feet tone	
6. Quint	5½
7. Octave	4
8. Wald Flute	4
9. Piccolo	2
10. Fifteenth	2
11. Octave Fifteenth	1
12. Trombone	16
13. Cornopean	8
14. Hautboy	8
15. Clarion	4
16. Octave Clarion	2
17. Furniture, 5 ranks	1⅔

PEDAL ORGAN.
CCC to D.

1. Open Diapason	wood	16
2. Ditto ditto	metal	16
3. Fifteenth	ditto	4
4. Trombone	ditto	16
5. Principal	wood	8

8 Composition Pedals
4 Coupling Movements

St. Mary's, Shrewsbury.

The organ in St. Mary's, Shrewsbury, is a fine instrument, and was built by Harris and Byfield in 1729. In 1847 it was enlarged and improved by Gray and Davison.

GREAT ORGAN.
CC to E in alt. 53 Notes.

	PIPES.
1. Stopped Diapason	53
2. Open ditto	53
3. Principal	53
4. Twelfth	53
5. Fifteenth	53
6. Sesquialtera	147
7. Mixture	65
8. Trumpet	53

CHOIR ORGAN.
CC to E in alt. 53 Notes.

1. Stopped Diapason	53
2. Dulciana to Tenor C	41
3. Principal	53
4. Flute	53
5. Fifteenth	53

SWELL ORGAN.
Tenor C to E in alt. 41 Notes.

1. Double Diapason	41
2. Open ditto	41
3. Stopped ditto	41
4. Principal	41
5. Fifteenth	41
6. Sesquialtera, 3 ranks	123
7. Hautboy	41
8. Cornopean	41
9. Clarion	41

PEDAL ORGAN.
CCC to Tenor D, 27 Notes.

Double Open Diapason	27

COUPLERS.

1. Swell to Great
2. Pedals to ditto
3. Ditto to Choir

NUMBER OF PIPES.

Great Organ	530
Choir Organ	253
Swell Organ	451
Pedal Organ	27
Total Number of Pipes	1261

NUMBER OF STOPS.

Great Organ	8
Choir Organ	5
Swell Organ	9
Pedal Organ	1
Couplers	3
Total Number of Stops	26

St. Chad's, Shrewsbury.

The organ in St. Chad's, Shrewsbury, was built by Gray in 1794, and enlarged and improved by Gray and Davison in 1848.

GREAT ORGAN.
CC to F in alt 54 Notes.

	PIPES.
1. Stopped Diapason	54
2. Open ditto	54
3. Ditto ditto to Tenor C, in place of 2-rank Mixture	42
4. Claribella to middle C, in place of 4-rank Cornet	30
5. Principal	54
6. Twelfth	54
7. Fifteenth	54
8. Sesquialtera, 3 ranks	150
9. Trumpet	54

CHOIR ORGAN.
CC to F in alt. 54 Notes.

	PIPES.
1. Stopped Diapason, Treble ...	54
2. Ditto ditto, Bass	
3. Keraulophon	42
4. Dulciana	42
5. Principal	54
6. Flute	42
7. Cremona	42
8. Bourdon from CCC to BB ...	12

SWELL ORGAN.
Tenor C to F in alt. 42 Notes.

1. Double Diapason	42
2. Stopped ditto	42
3. Open ditto	42
4. Principal	42
5. Fifteenth	42
6. Sesquialtera, 3 ranks	126
7. Hautboy	42
8. Cornopean	42
9. Clarion	42

PEDAL ORGAN.
CCC to E, 29 Notes.
Double Open Diapason

ACCESSORY STOPS, ETC.

1. Swell to Great
2. Pedals to ditto
4. Ditto to Choir
3 Composition Pedals to Great
2 Ditto ditto to Swell

NUMBER OF PIPES.

Great Organ	546
Choir Organ	288
Swell Organ	462
Pedal Organ	29
Total Number of Pipes...	1325

NUMBER OF STOPS.

Great Organ	9
Choir Organ	8
Swell Organ	9
Pedal Organ	1
Couplers	3
Total Number of Stops...	30

Bethesda Chapel, Hanley, Staffordshire.

The organ in Bethesda chapel, Hanley, Staffordshire, was built by Kirtland and Jardine, of Manchester. The mechanism is constructed on the plan known as the "Simplification System." The sound-boards are of such ample size that all the pipes stand directly over the channels supplying them with wind. The tuning is equal temperament.

GREAT ORGAN.
CC to F in alt. 54 Notes.

	FEET.
1. Double Diapason	16
2. Open ditto	8
3. Stopped ditto	8
4. Principal	4
5. Twelfth	2⅔
6. Fifteenth	2
7. Sesquialtera, 4 ranks	
8. Trumpet	8

CHOIR ORGAN.
CC to F in alt. 54 Notes.

	FEET.
1. Dulciana	8
2. Viola di Gamba	8
3. Stopped Diapason	8
4. Clear Flute	4
5. Flageolet	2
6. Bassoon and Clarionet	8

R.

SWELL ORGAN.
CC to F in alt. 54 Notes

	FEET.
1. Bourdon	16
2. Spitz Flöte	8
3. Gedact	8
4. Gemshorn	4
5. Fifteenth	2
6. Mixture, 2 and 3 ranks	
7. Cornopean	8
8. Oboe	8
9. Clarion	4

PEDAL ORGAN.
CCC to E, 29 Notes.

	FEET.
1. Grand Open Diapason	16
2. Grand Bourdon	16
3. Principal	8
4. Stopped Diapason	8
5. Trombone	16
6. Trumpet	8

ACCESSORY STOPS, ETC.

1. Swell to Great
2. Choir to ditto
3. Swell to Pedals
4. Great to ditto
5. Choir to ditto
6 Combination Pedals

Stratford-on-Avon.

This organ was built by Mr. Hill in 1841. It was designed by Mr. F. Marshall, of Leamington, on the plan adopted on the continent; viz. each manual (of the same compass) having a double open, balanced by a unison open, quint, large reed stop, and 7 ranks of mixtures. The swell organ is almost as comprehensive as any made in this country. The plan of the echo cornet is taken from that of the church of St. Peter, Cornhill. The compass of the pedal board is 2 octaves and 2 notes, from CCC to D. This organ has 32 pipes to each note on the manuals, and 42 on the pedals.* Total number of pipes, 2328.

GREAT ORGAN.
CC to F in alt. 54 Notes.

	FEET.
1. Tenoroon Diapason	16
2. Bourdon, CCC, to meet No. 1, 16 feet tone	
3. Stopped Diapason, Treble, 8 feet tone	
4. Ditto ditto, Bass, 8 ft. tone.	
5. Principal Diapason	8
6. Quint	5⅓
7. Principal Octave	
8. Twelfth	2⅔
9. Fifteenth	2
10. Octave Fifteenth	1
11. Sesquialtera	1⅓
12. Mixture	
13. Corno Trombone	8
14. Corno Clarion	4
15. Wald Flute	4
16. Oboe Flute	4
17. Dulciana	8
18. Cromorne, 8 feet tone	

* When coupled with Manuals, but only 10 independent pipes to each note.

SWELL ORGAN.
CC to F in alt. 54 Notes.

	FEET.
1. Tenoroon Diapason, CC ...	16
2. Bourdon, CCC, to meet No. 1, 16 feet tone	
3. Stopped Diapason, Treble, 8 feet tone	
4. Ditto ditto, Bass, 8 ft. tone	
5. Principal Diapason	8
6. Doublette, 2 ranks	2
7. Principal Octave	4
8. Suabe Flute	4
9. Flageolet	2
10. Cornopean	8
11. Oboe	8
12. Echo Dulciana Cornet, 5 rks.	1⅓

PEDAL ORGAN.

	FEET.
1. Great Open Diapason, CCC	16
2. Contra Posaune, CCC ...	16
3. Bourdon, CCC, 16 feet tone	8
4. Principal	2
5. Fifteenth	1
6. Mixture, 5 ranks	3

ACCESSORY STOPS, ETC.

1. Swell to Great
2. Ditto to Pedals
3. Great to ditto
4. Octave Pedal
5 Composition Pedals

Tewkesbury Abbey.

Part of the organ now standing in the Abbey Church of Tewkesbury formed a portion of that which originally stood in Magdalen College, Oxford. During the time of the troubles, Cromwell, who was partial to the organ, caused this one to be removed to Hampton Court. It was afterwards restored to the College, where it remained till 1740, when, upon a new organ being erected by Schwarbrook, it was removed to Tewkesbury. Nothing of the original organ remains but a few diapasons and principal; and these were retained because, though very thin, they were valuable pipes, inasmuch as they were made, together with the choir or east front, of tin, alloyed with about 8 pounds of lead to the cwt. This organ has been entirely remodelled and greatly enlarged, by Mr. Henry Willis, of London.

GREAT ORGAN.
CC to F in alt.

	FEET.
1. Open Diapason	8
2. Ditto ditto	8
3. Stopped ditto, 8 feet tone	
4. Claribella	8
5. Dulciana	8
Principal	4
7. Twelfth	2⅔
8. Fifteenth	4
9. Sesquialtera	
10. Mixture	
11. Trumpet	8
12. Clarion	
13. Cremona, 8 feet tone	

SWELL ORGAN.
CC to F in alt.

	FEET.
1. Open Diapason	8
2. Stopped ditto, 8 feet tone	
3. Principal	4
4. Fifteenth	2
5. Sesquialtera, 3 ranks	1½
6. Trumpet (only prepared for)	
7. Hautboy	8

PEDAL ORGAN.
2 Octaves and a major third, from CCC to E.

	FEET.
1. Double Open Diapason	16
2. Double Trumpet	16

COUPLERS.

1. Swell to Great
2. Ditto to Pedals
3. Great to ditto

Trinity Church, Tonbridge Wells.

The organ in Trinity church, Tonbridge Wells, was built by Gray in 1840, and is a very fine one.

GREAT ORGAN.
GG to F in alt.

1. Stopped Diapason
2. Open ditto
3. Ditto ditto
4. Principal
5. Twelfth
6. Fifteenth
7. Sesquialtera, 3 ranks
8. Trumpet

CHOIR ORGAN.
GG to F in alt.

1. Stopped Diapason
2. Open ditto
3. Principal
4. Fifteenth
5. Flute
6. Cremona to Fiddle G

SWELL ORGAN.
Tenor C to F in alt.

1. Stopped Diapason
2. Open ditto
3. Principal
4. Trumpet
5. Hautboy

2 Octaves and a note of German Pedals, from CCC, with 1 Octave of Pedal Pipes
Coupler to Great
4 Composition Pedals

Crossland Church, Yorkshire.

The organ in Crossland church, Yorkshire, was built by Kirtland and Jardine, of Manchester. The mechanism is constructed on the "Simplification System." All the pipes stand over the channels which supply them with wind. The tuning is equal temperament.

GREAT ORGAN.
CC to G in alt. 56 Notes.

	FEET.
1. Double Open Diapason	16
2. Open Diapason	8
3. Ditto ditto	8
4. *Stopped ditto*	8
5. Principal	4
6 Twelfth	2⅔
7. Fifteenth	2
8. Sesquialtera, 4 ranks	
9. Trumpet	8

CHOIR ORGAN.
CC to G in alt. 56 Notes.

	FEET.
1. Dulciana	8
2. Viola di Gamba	8
3. Stopped Diapason	8
4. Clear Flute	4
5. Flageolet	2
6. Bassoon and Clarionet	8

SWELL ORGAN.
CC to G in alt. 56 Notes.

1. Bourdon	16
2. Open Diapason	8
3. Gedact	8
4. Gemshorn	4
5. Fifteenth	2
6. Mixture, 3 ranks	
7. Cornopean	8
8. Oboe	8
9. Clarion	4

PEDAL ORGAN.
CCC to E, 29 Notes.

1. Open Diapason	16
2. Bourdon	16
3. Principal	8

ACCESSORY STOPS, ETC.

1. Swell to Great
2. Choir to ditto
3. Swell to Pedals
4. Great to ditto
5. Choir to ditto
6 Combination Pedals

Leeds Town Hall.

This gigantic instrument, which was built in 1858 by Messrs. Gray and Davison, of London, stands in the orchestra at the north end of the hall. It is upwards of 50 feet high, and about 47 feet in width, and weighs nearly 70 tons. The case was made in Leeds by Messrs. Thorp and Atkinson, from the designs of the architect. The ornaments are all of carved wood, and are well executed by Mr. Matthews, a townsman.

The specification and designs for the organ were prepared by Messrs. Henry Smart, of London, and Dr. William Spark, of Leeds, and were selected by the Leeds Town Council from a number of schemes submitted to them by many of the first organ builders in competition for a premium of £150.

The instrument possesses four manual claviers—compass of each from CC to C in altissimo—61 notes; and a pedal clavier extending from CCC to F, or a compass of 30 notes.

GREAT ORGAN (FRONT).

	FEET.
1. Double Diapason, Open, metal	16
2. Open ditto	8
3. Spitz Gamba	8
4. Stopped Diapason	8
5. Octave	4
6. Wald Flöte	4
7. Twelfth	3
8. Fifteenth	2
9. Quint Mixture, 4 ranks	
10. Tierce ditto, 5 ranks	
11. Trumpet	8
12. Clarion	4

(BACK).

13. Bourdon	16
14. Flute à Pavilion	8
15. Viola	8
16. Flute Harmonic	8
17. Quint	6
18. Octave	4
19. Flute Octaviante	4
20. Piccolo Harmonic	2
21. Cymbal, 4 ranks	
22. Furniture	3
23. Contra Trombone	16
24. Trombone	8
25. Trumpet Harmonic	8
26. Tenor Trombone	4

CHOIR ORGAN.

1. Sub-dulciana	16
2. Open Diapason	8
3. Rohr Flute.....metal }	8
4. Stopped Bass.....wood }	
5. Salcional	8
6. Viol di Gamba	8
7. Octave	4
8. Suabe Flute	4
9. Flute Harmonic	4
10. Twelfth	3
11. Fifteenth	2
12. Ottavina .....wood	2
13. Dulciana Mixture, 5 ranks	
14. Euphone ...free reed	16
15. Trumpet	8
16. Clarion	4

SWELL ORGAN.

1. Bourdon	16
2. *Open* Diapason	8
3. *Stopped ditto*, Treble	8
4. Ditto ditto, Bass	8
5. Keraulophon	8
6. Harmonic Flute	8
7. Octave	4
8. Gemshorn	4
9. Wood Flute	4
10. Twelfth	3
11. Fifteenth	2
12. Piccolo	2
13. Sesquialtra, 4 ranks	
14. Mixture, 3 ranks	
15. Contra Fagotta	16
16. Trumpet	8
17. Cornopean	8
18. Oboe	8
19. Vox Humana	8
20. Clarion	4

SOLO ORGAN.

1. Bourdon	8
2. Concert Flute, Harmonic	8
3. Piccolo, Harmonic	4
4. Ottavina, Harmonic	2
5. Clarinet	8
6. Oboe	8
7. Cor. Anglais and Bassoon, free reed	8
8. Tromba	8
9. Ophecleide	8

BY MECHANICAL COMBINATION.

10. Clarinet and Flute in Octaves.
11. Oboe and Flute in Octaves.
12. Clarinet and Bassoon ditto.
13. Clarinet and Oboe ditto.
14. Oboe and Bassoon ditto.
15. Flute Clarinet and Bassoon in Double Octaves.
16. Flute, Oboe, and Bassoon in Double Octaves.

PEDAL ORGAN.

1. Sub-Bass, Open.....metal	32
2. Contra Bourdon ...wood	32
3. Open Diapason.....metal	16
4. Ditto ditto.....wood	16
5. Violon.....ditto	16
6. Bourdon.....ditto	16
7. Quint, Open .....ditto	12
8. Octave	8
9. Stopped Flute	8
10. Twelfth	6

FEET.

11. Fifteenth 4
12. Mixture, 5 ranks
13. Contra Bombard ...free reed 32
14. Bombard 16
15. Fagotto..... 16
16. Clarion 8

COUPLERS.

1. Solo to Great
2. Great to Solo
3. Solo, Super Octave
4. Solo, Sub Octave.
5. Swell to Great, Super Octave
6. Ditto to ditto, Ditto Unison
7. Ditto to ditto, Sub Octave
8. Ditto Organ, Choir
9 Choir to Great, Unison
10. Swell to Pedals
11. Choir to ditto
12. Great to ditto
13. Full Pedal Organ
14. Solo to Pedals.

PEDALS.

1. Swell Pedal
2. Ditto ditto for Solo Organ
3. Tremulant Pedal
4. Pedal admitting wind to the back Great Organ
5. Pedal coupling the back Great Organ to Swell Clavier
6. } Composition Pedals
7. }
8. }
9. }
10. Crescendo Pedal
11. Diminuendo Pedal

NUMBER OF PIPES.

Great Organ	2433
Choir Organ	1117
Swell Organ	1494
Solo Organ	506
Pedal Organ	600
Total Number of Pipes...	6150

NUMBER OF STOPS.

Great Organ, Front 13, Back 14.	26
Choir Organ	16
Swell Organ	20
Solo Organ.....	16
Pedal Organ	16
Couplers.....	14
Composition and other Pedals for various movements	11
Total Number of Stops...	119

The Leeds Town Hall Organ is one of the largest in Europe. But, large as it is, its claims to notice depend less on its size than on its completeness, and the facilities it offers to the skilful performer for the execution of all styles of music with just effect. Whilst more than one Organ in England (we believe both York and Liverpool) contains a larger number of actual pipes than the Leeds Instrument, it will, nevertheless, be evident to any person, inspecting the peculiar construction, and the number of mechanical contrivances for increasing the variety of effects, especially in the Solo Organ, that, in an almost unlimited change and degree of tone, as well as in intensity of power and orchestral combinations, this organ stands unrivalled.

No stop belonging to the solo organ has any reference to those massive or full effects which properly are the province of the other periods of the instrument. Every stop (except the bourdon, to be used with the reeds) is simply what it pretends to be, *a solo stop*, having the nearest attainable relation with its orchestral prototype. Further to increase the practical usefulness of this relation, all the stops (except the bourdon aforesaid) are placed *horizontally;* a position which, by careful experiment, has been found to add between twenty and thirty per cent. to their ordinary intensity of tone; and to meet this unusual position the sound-boards are placed vertically instead of horizontally. Furthermore, the first 8 stops in the list are supplied with a high-pressure of wind (6 inches for the bass and tenor, and 7 inches for the middle and treble portions of their compass), and are enclosed in two swell-boxes, having Venetian shutters above, below, and in front. The ninth stop, ophicleide, stands, or rather lies, below the rest of the solo organ, and is supplied with 12 inches air pressure throughout. The great peculiarity of this solo organ, however, is found in the stops numbered from 10 to 16, which, by means of a number of mechanical contrivances (simple in themselves, but almost impossible to describe clearly without the aid of diagrams), enable the performer to play certain of the stops in octaves to each other, while merely touching single notes on the clavier. Thus, for example, on drawing the stop No. 15, labelled, flute, clarinet, and bassoon, in double octaves, and pressing down the middle C of the solo clavier, the result will be, the tenor C of the *cor Anglais*,* the middle C of the *clarinet*, and C above the

* *The best imitative bassoon, when properly made, that organ-building skill has ever arrived at.*

8 feet *flute harmonique*, sounding simultaneously. Similarly, any of the stops numbered from 10 to 16 will place at the performer's disposal the combinations with which they are labelled. The operation of these stops for mechanical combination, it will be perceived, is totally different from that of any movement whereby ordinary stops of *different pitch* are drawn together. For example, the effect produced by combining the 4 feet flute and the 4 feet cremona of an ordinary choir organ, will no more resemble that resulting from the stop No. 10, which places the middle C of the 8 feet clarinet and the C above of the 8 feet flute on the same key as the clavier, than will the effect of the *sounding* octave resulting from the combination of an open diapason and principal compare with that of an octave actually *played* on the open diapason. By these contrivances, then, a very accurate imitation of almost all the ordinary wind-combinations of an orchestra is placed easily within grasp of *one* of the performer's hands, leaving the other free for any of those purposes of florid accompaniment in which the modern race of players are so proficient. By the use, again, of Nos. 8 and 4 of the coupling stops, a different class of effects is presented. A melody, for example, played unisonously on the ophicleide, can be accompanied in the octave above and below it by any or all of the other stops of the solo organ, and this merely by playing single notes on the clavier. On the whole, it may be said that this solo organ more nearly fulfils the objects implied in its title than any yet constructed.

In the great organ there are some excellent features of arrangement. The idea of dividing the great organ into two distinct masses is certainly not altogether novel; a similar distribution has been at least hinted at in two or

three continental examples. In the present instance, however, the principle has been developed, and the various resources it affords have been made available to a far greater extent than appears to have been contemplated in any other case. The twelve stops placed on the "front" sound-boards are calculated to form a comparatively *light*, though powerful and brilliant organ, while the remaining fourteen stops placed on the "back" sound-boards, comprising some of the strongest members of the flue-work—the flute à pavillon,* the viola, and the harmonic series of 8, 4, and 2 feet pitch, together with the quint, the large mixtures, and the heavy reeds, will form a "band" entirely different to the foregoing in amount and quality of force. There is a pedal, numbered 4 in the list of pedals for mechanical adjustment, which operates on stop-valves placed in the wind-trunks of the "back" sound-boards, or, in other words, discharges the functions of what the Dutch and German builders call a "wind-coupler." So long as this pedal remains "hitched down," all the 26 stops are at the performer's disposal on the great organ clavier; while the act of releasing this pedal instantaneously cuts off the wind-supply from the stops of the "back" sound-boards, and thus severs them from the control of the keys. Hence, then, by the use of this pedal, all or any of the stops of the "back" sound-boards may be instantaneously added to the whole or any part of the "front" great organ: thus providing (besides numerous other effects depending on the stops at the moment in use) the most rapid and perfect

* The stop is of French origin, and its name has once or twice been *Englished* into "bell diapason." It is one of the most powerful members *of the flue tribe.*

sforzando possible. There is, besides, another pedal, numbered 5, in the same list, the operation of which, on being "hitched down," is to disconnect the stops of the "back" sound-boards from the great, and couple them to the swell clavier; thus rendering the two portions of the great organ separately disposable on different claviers, and suggesting a host of novel combinations, of which the modern race of organists will not be slow to avail themselves. We may close this account of the mechanical arrangements of the great organ by stating that its 26 stops are disposed on nine sound-boards of ample dimensions; and that the air with which they are supplied is increased in pressure *twice* in the range of the compass, namely, at fiddle G sharp, and again at D sharp, the twelfth above; while the air supplied to the four reed stops of the "back" sound-boards, increasing at the same points, has a higher initial pressure than that allotted to the flue work.

The tone-composition of the great organ is also worthy of remark. Taking the proportions of the flue-stops alone, they stand thus: two stops of 16 feet, six of 8 feet, one of 6 feet, four of 4 feet, one of 3 feet, two of 2 feet, and 18 ranks of mixtures. To this add the reeds, namely: one of 16 feet, three of 8 feet, and two of 4 feet; and the total statement will be, three stops of 16 feet, nine of 8 feet, one of 6 feet, six of 4 feet, one of 3 feet, two of 2 feet, and, as before, 18 ranks of mixtures. Throughout all this there are no vain repetitions of similar scales and qualities. For example, the six stops which compose the 8 feet pitch of the flue-work are an open diapason (of the old English class), a gamba (of the conical description), a bourdon, a flûte à pavillon (previously described), a viola (the largest and most powerful of the German tribe known as "string-toned stops"), and a

flûte harmonique. The same care is exercised throughout the remainder of the flue-work, not omitting the four mixture stops, the scales and compositions of which are studiously varied with reference to the particular part contemplated for each in the general effect. In the reed-work, also, of this manual, a similar rule of variety is observed. The trumpet and clarion of the "front" great organ follow, as nearly as possible, the model of that brilliant, clangy, description of reeds which Byefield made so deservedly famous—a quality, by the way, far too much neglected of late years in this country; while, in the "back" great organ, the modern English style of reed-work is adopted for the contra trombone, trombone, and tenor trombone; and the most successful achievement of the French school will have its representative in the harmonic trumpet. Under all these circumstances, then, of quantity and variety, there can be no doubt that, as a single manual, this great organ has very few rivals in Europe.

Having gone somewhat into detail in describing the great organ, it is needless, beyond stating that similar principles are to be observed throughout the instrument, to do more with respect to the swell or choir organs than refer to the list of their registers as amply representing the qualities of these manuals respectively. In one respect, however, the arrangements of the swell organ differ from those usually adopted. Having its twenty stops disposed on four sound-boards, the two front ones, containing all the reed-work, are supplied with air at one inch heavier pressure than that allotted to the others.

The adherents of the old-fashioned English large pedal-pipe school will, doubtless, be greatly scandalized by the *absence of* a 32 feet open wood stop from the pedal organ.

When, however, it is remembered that the 16 feet pitch should always represent the real weight of a pedal organ, that in the present scheme there are already *three* 32 feet stops, namely: a metal open, a bourdon, and a reed; and that an immensely large majority of the finest Continental examples authorise this proportion, there can be no question of its sufficiency and completeness. There is a convenient mechanical arrangement in this pedal organ which obviates most of the difficulty sometimes complained of in manipulating a large number of pedal stops. Next to the coupler "great organ to pedals" is placed a draw stop, which controls the admission of wind to all the pedal organ, except only the violon and bourdon. As both these stops can be easily drawn or retired simultaneously, the full pedal organ may be reduced to two soft 16 feet stops by the same action which detaches the great organ keys from the pedals.

In order as little as possible to perplex the operations of the performer, there are but four composition pedals for the whole instrument. These, however, by an instantaneous adjustment, act as the player requires, on the swell organ alone, or on the swell, great, and pedal organs simultaneously, or on the two latter only. Furthermore, each of these four composition pedals is capable of effecting *three* different combinations (the changes extending, as before mentioned, to the swell, great, and pedal organs, or either of them); the *modus operandi*, so far as the performer is concerned, being simply the setting of an index (one of which appertains to each of the composition pedals) to the number indicating the required combination.

The crescendo and diminuendo pedals, with which the list of mechanical adjustments terminates, act on the swell

and great organ combined, or on each separately, in the manner as mentioned of the composition pedals; and in all these cases the necessary movements are imparted to the slides of the sound-boards by the agency of the pneumatic apparatus, whereby the space passed through by the pedal, and the pressure of the foot required to produce its motion, will both be reduced to a *minimum*.

The non-musical reader, who may be disposed to regard the organ merely as a gigantic piece of furniture in the hall, or, at most, as a huge constructive curiosity, may be amused to learn that the largest of the metal pipes standing in the front of the case is 34 feet in length, with an internal diameter of 21 inches, while among the 6,000 pipes concealed within the case is found every variety of dimension, from the largest, just mentioned, to the smallest, the length of which is but three-quarters of an inch, with a diameter scarcely exceeding that of a straw.

The difficulty, always experienced, of supplying organs of the largest class with an adequate quantity of wind, has, in this instance, been overcome by the employment of the hydraulic engines patented by Mr. David Joy, of Leeds. Five of these most simple and elegant machines are attached to a like number of bellows, placed in the basement of the building, and the wind-supply thus procured is thence distributed to the various departments of the instrument, through the intervention of 27 reservoirs, so loaded as to yield the desired varieties of pressure. The united power of these hydraulic engines, equal to eight-horse power, is capable of supplying 50 cubic feet of air per second, if necessary; and it is impossible to speak too highly of the accuracy and precision of their action.

St. George's Church, Leeds.

The organ in St. George's Church, Leeds, was built by Messrs. Holt and Co. in 1850; and re-built and enlarged by Messrs. Gray and Davison in 1859. It contains 3 manuals, and 40 sounding stops.

GREAT ORGAN.

	FEET.
1. Double Diapason	16
2. Open ditto	8
3. Stopped ditto Bass	8
4. Rohr Flute	8
5. Concert ditto	8
6. Octave	4
7. Harmonic Flute	4
8. Twelfth	3
9. Super Octave	2
10. Furniture, 3 ranks	
11. Mixture, 3 ranks	
12. Trumpet	8
13. Clarion	4

CHOIR ORGAN.

1. Open Diapason	8
2. Stopped ditto Bass	8
3. Ditto ditto Treble	8
4. Salcional	8
5. Flute	4
6. Octave	4
7. Super Octave	2
8. Clarionet	8

SWELL ORGAN.

	FEET.
1. Bourdon	16
2. Open Diapason	8
3. Stopped ditto	8
4. Keraulophon	8
5. Octave	4
6. Clarion	4
7. Super Octave	2
8. Mixture, 3 ranks	
9. Oboe	8
10. Cornopean	8
Tremulant	

PEDAL ORGAN.
2½ Octaves.

1. Grand Open Diapason	16
2. Grand Bourdon	16

ACCESSORY STOPS, ETC.

1. Swell to Pedals
2. Great to ditto
3. Choir to ditto
4. Swell to Great Unison
5. Ditto to ditto Sub Octave
6. Ditto to ditto Super Octave
7. Ditto to Choir

Seven Composition Pedals

CHAPTER XV.

ORGANS IN SCOTLAND, IRELAND, NEWFOUNDLAND, BOMBAY, OPORTO, AND THE UNITED STATES.

Music Hall, Edinburgh.

The organ in the Music Hall, Edinburgh, which is a particularly fine instrument, was built by Mr. Hill, of London, in 1843. It contains 3 rows of keys. The great

organ, from CC to F in alt; the choir organ, from CC to F in alt; the swell, from tenor C to F in alt; the pedal organ, from CCC to tenor D, 27 notes. The case is of Grecian architecture, the whole height being 85 feet, by 17½ feet wide in front.

GREAT ORGAN.

	FEET.
1. Tenoroon, 1 Octave, Bass, to CCC	16
2. Bourdon, 16 feet tone	
3. Unison, Open	8
4. Ditto, Closed, 8 feet tone	
5. Ditto, ditto, Treble, 8 feet tone	
6. Octave	4
7. Quint	5⅓
8. Duodecima	2⅔
9. Super Octave	2
10. Sesquialtera, 3 ranks	1⅓
11. Mixture, 2 ranks	1
12. Doublette, 2 ranks	2
13. Wald Flute	4
14. Posaune	8

CHOIR ORGAN.

1. Corno Flute	8
2. Cornopean, Bass	8
3. Flute, Closed, 4 feet tone	
4. Piccolo	2
5. Oboe Flute	4
6. Celestina	4
7. Salcionel	8
8. Claribella	8
9. Cremona, 8 feet tone	
10. Unison, Closed, Bass, 8 feet tone	
11. Viol di Gamba	8

SWELL ORGAN.

1. Tenoroon, Dulciana	16
2. Unison, Closed, 8 feet tone	
3. Ditto, Open	8
4. Octave	4
5. Suabe Flute	4
6. Doublette, 2 ranks	2
7. Echo Cornet, 4 ranks	
8. Flageolet	2
9. Cornopean	8
10. Oboe	8

PEDAL ORGAN, to CCC.

1. Contra Bass, Open	16
2. Bourdon, Stopped, 16 feet tone	
3. Trombone ..... wood	16

COUPLERS.

1. Swell to Great
2. Choir to ditto
3. Pedals to ditto
4. Choir to Pedals

45 Draw Stops in all.

The organ contains 8 composition pedals, and 2 pairs of bellows, one pair being for the pedal organ only.

Edinburgh University.

The organ in the Music Class-Room, University, Edinburgh, was built by Hill and Son, in 1861, at a cost of £2,000. It consists of four manuals and a pedal organ.

GREAT ORGAN.
CC to A.

	FEET.
1. Double Diapason	16
2. Open ditto	8
3. Gamba	8
4. Stopped Diapason	8
5. Principal	4
6. Harmonic Flute	4
7. Twelfth	3
8. Fifteenth	2
9. Mixture, 4 ranks	
10. Posaune	8
11. Clarion	4

CHOIR ORGAN.
CC to G.

1. Dulciana	8
2. Hohl Flute	8
3. Stopped Diapason	8
4. Gemshorn	4
5. Suabe Flute	4
6. Piccolo	2
7. Cor anglais	16
8. Clarionet	8

SWELL ORGAN.
CC to G.

1. Bourdon	16
2. Open Diapason	8
3. Dulciana	8
4. Stopped Diapason	8
5. Principal	4
6. Lieblich Flute	4
7. Fifteenth	2
8. Mixture, 2 ranks	
9. Cornopean	8
10. Oboe	8
11. Clarion	4

SOLO ORGAN.
CC to G.

1. Harmonic Mixture, 14 ranks	8

[Containing the harmonic sounds of the unison tone up to the fourth octave, viz. 9, 8th, 12th, 15th, 17th, 19th, 21st flat (minor 7th), 22nd, 23rd (major 2nd), 24th, 26th, 28th flat (minor 7th), 28th (major 7th), 29th.]

2. } Spare Slides
3. }
4. }
5. }

PEDAL ORGAN.
CCC to F.

1. Sub Bass, Open	32
2. Open Diapason ..... wood	16
3. Violone ..... metal	17
4. Ditto ..... wood	8
5. Trombone	16

COUPLERS.

1. Swell to Great
2. Solo to ditto
3. Choir to ditto
4. Great to Pedal
5. Swell to ditto
6. Choir to ditto

In addition to the above, there is a cylinder organ for illustrations in harmony, consisting of 5 parts, viz.

BASS.
CC to E.
Stopped Diapason, 29 notes

TENOR.
C to C.
Gamba, 25 notes

ALTO.
G to G.
Dulciana, 25 notes

FIRST TREBLE.
C to F.
Keraulophon, 30 notes

SECOND TREBLE.
C to F.
Flute, 30 notes

The cylinder is worked by a pneumatic engine, on the oscillating principle, supplied from the heavy pressure bellows of the organ.

The draw stops and great manual have pneumatic apparatus, and the bellows are worked by Joy's hydraulic engines. All the pipes are of the best spotted metal, and the workmanship is in the highest style of finish, the whole of the interior being visible and accessible to the student.

"This interesting instrument was suggested by Professor Donaldson, and forms a valuable item in the extensive and unique collection of musical instruments and scientific apparatus which enrich the Reid Music School, and enhance the value of the lectures of the indefatigable professor who now so honourably fills the chair."

St. Paul's Episcopal Church, Edinburgh.

The organ in St. Paul's Episcopal Church, Edinburgh, built by the celebrated Snetzler, contains several stops of beautiful quality of tone, and finely voiced.*

GREAT ORGAN.
GG to E in alt.

	FEET.
1. Open Diapason	8
2. Stopped ditto	8
3. Principal	4
4. Twelfth	3
5. Fifteenth	2
6. Sesquialtera, 4 ranks	
7. Mounted Cornet to Middle C, 4 ranks	
8. Trumpet	8

CHOIR ORGAN.
GG to E in alt.

1. Open Diapason	8
2. Principal	4
3. Stopped Diapason	8
4. Twelfth	2
5. Fifteenth	2
6. Flute	4
7. Cremona	8

SWELL ORGAN.
Tenor D, 3rd line Bass Staff to E in alt.

1. Double Diapason	16
2. Open ditto	8
3. Stopped ditto	8
4. Principal	4
5. Oboe	8
6. Trumpet	8

PEDAL ORGAN.
CCC to C.

Double Open Diapason	16

COUPLERS.

Swell to Great
Great to Pedals

* Messrs. Hamilton, organ builders at Edinburgh, from whom I received the account of the organ, have not stated at what period the *pedal organ* and couplers were added.—EDITOR.

St. John's Episcopal Church, Edinburgh.

The organ in St. John's Episcopal Church, Edinburgh, was originally built by England. It has been added to from time to time. Between the years 1833-36, Messrs. Hamilton added a choir and pedal organ. The choir organ is in two halves, one on each side of the gallery, with actions upwards of 50 feet long, and the touch of which is as light as that of a pianoforte. The present disposition of the organ is as follows:

GREAT ORGAN.
CC to F in alt.

	FEET.
1. Double Open Diapason, lowest 9 Notes, Stopped	16
2. Open Diapason	8
3. Ditto, Small Scale	8
4. Stopped Diapason	8
5. Claribella to G	8
6. Principal	4
7. Harmonic Flute, Tenor C	4
8. Twelfth	3
9. Fifteenth	2
10. Mixture, 3 ranks	
11. Trumpet	8
12. Clarion	2

CHOIR ORGAN.
CC to F in alt.

1. Open Diapason	8
2. Stopped ditto	8
3. Viol di Gamba, Tenor C	8
4. Principal	4
5. Flageolet, Tenor C	4
6. Twelfth	3
7. Fifteenth	2
8. Cremona	8

SWELL ORGAN.
CC to F in alt.

	FEET.
1. Double Open Diapason, lowest 19 Notes, Stopped	16
2. Open Diapason	8
3. Stopped ditto	8
4. Keraulophon, Tenor C	8
5. Principal	4
6. Fifteenth	2
7. Mixture, 2 ranks	
8. Doublette, 2 ranks	
9. Cornopean	8
10. Oboe	8
11. Clarion	4

PEDAL ORGAN.

1. Open Diapason	16
2. Violoncello	8
3. Trombone	16

ACCESSORY STOPS, ETC.

1. Swell to Great
2. Great to Pedals
3. Choir to Pedals
4. Super Octave to Swell
Six Composition Pedals

St. Mary's Catholic Church, Edinburgh.

This organ, originally a GG, by Bruce, was altered to CC scale, and a new choir and pedal organ added in 1841, by Messrs. Hamilton.

GREAT ORGAN.

	FEET.
1. Open Diapason (front)	8
2. Stopped Diapason	8
3. Principal	4
4. Twelfth	3
5. Fifteenth	2
6. Mixture, 6 ranks	
7. Trumpet	8

CHOIR ORGAN.

1. Open Diapason	8
2. Stopped ditto	8
3. Principal	4
4. Flute	4
5. Twelfth	3
6. Fifteenth	2
7. Spare Slide	

SWELL ORGAN.
Fiddle G to F in alt.

1. Stopped Diapason	8
2. Dulciana	8
3. Principal	4
4. Oboe	8

PEDAL ORGAN.
CCC to C.

Great Double Open Diapason	16

COUPLERS.

1. Choir to Great
2. Great to Pedals

Trinity Episcopal Church, Edinburgh.

The organ in Trinity Episcopal Church, Edinburgh, was built by Messrs. Hamilton, in 1840.

GREAT ORGAN.
GG to F in alt.

	FEET.
1. Open Diapason (front)	8
2. Stopped Diapason	8
3. Principal	4
4. Twelfth	3
5. Fifteenth	2
6. Mixture, 3 ranks	
7. Trumpet	8

CHOIR ORGAN.
GG to F in alt.

1. Viol di Gamba	8
2. Stopped Diapason	8
3. Flute	8
4. Flageolet	4

SWELL ORGAN.
Tenor F 4th line Bass Staff to F.

	FEET.
1. Open Diapason	8
2. Stopped ditto	8
3. Dulciana	8
4. Principal	4
5. Oboe	8

PEDAL ORGAN.

Great Double Open Diapason	16

COUPLERS.

Swell to Great
Choir to Great
Great to Pedals

The Augustine Congregational Church, Edinburgh.

The organ in this church was built by Messrs. Hamilton, and presented to the church by William McMurray, Esq. of London, in 1863. Nearly the whole of the metal pipes are of pure tin. The bellows are very large, and placed two stories below the organ, and are blown by an hydraulic engine. There are also three wind magazines, one under each chest.

UPPER MANUAL.
CC to F in alt.

	FEET.
1. Open Diapason	8
2. Stopped ditto	8
3. Keraulophon	8
4. Pincipal	4
5. Bourdon	16
6. Dulciana	8
7. Principal	4
8. Hautboy	8
9. Spare Slide	

Nos. 5 to 9 of these stops to Tenor C in a Swell.

UNDER MANUAL.
CC to F in alt.

	FEET.
1. Double Open Diapason, (front) the lowest octave stopped	16
2. Open Diapason (front)	8
3. Gemshorn	8
4. Stopped Diapason	8
5. Flute	4
6. Principal	4
7. Twelfth	3
8. Fifteenth	2
9. Harmonic Mixture, 2 and 3 ranks, No. 1	
10. Harmonic Mixture, 2 and 3 ranks, No. 2	
11. Trumpet	8

PEDAL ORGAN.
CCC to D.

	FEET.
1. Great Double Open Diapason	16
2. Trombone	16
3. Principal	8
4. Spare Slide for Quint	6
5. Ditto for Octave	4

COUPLERS.

1. Swell to Great
2. Great to Pedals

4 Composition Pedals acted upon by the pneumatic lever

Old Greyfriars Church, Edinburgh (Dr. Lee's).

This is the first organ for the Established Church of Scotland, built by Messrs. Hamilton, in 1865. It is 26 feet high, 19 feet broad, and 8 feet deep from front to back.

GREAT ORGAN.
CC to G in alt.

	FEET.
1. Open Diapason (front)	8
2. Viol di Gamba (front)	8
3. Stopped Diapason	8
4. Diapason Flute	8
5. Principal	4
6. Gemshorn	4
7. Twelfth	3
8. Fifteenth	2
9. Harmonic Mixture, 4 ranks	
10. Trumpet	8

SWELL ORGAN.
CC to G in alt.

	FEET.
1. Bourdon	16
2. Open Diapason	8
3. Rohr Flute	8
4. Dulciana	8
5. Principal	4
6. Twelfth	3
7. Fifteenth	2
8. Hautboy	8

PEDAL ORGAN.
CCC to F.

	FEET.
1. Great Double Open Diapason	16
2. Violoncello	8

COUPLERS.

1. Swell to Great
2. Ditto to Pedals
3. Great to Pedals

St. Mary's Episcopal Church, Dalkeith.

This organ is a very fine instrument, the whole of the metal pipes being made of pure tin. It was erected by Messrs. Hamilton in 1845.

GREAT ORGAN.
CC to F in alt.

	FEET.
1. Open Diapason (front)	8
2. Stopped ditto	8
3. Flute	8
4. Principal	4
5. Gemshorn	4
6. Twelfth	3
7. Fifteenth	2
8. Sesquialtera, 3 ranks	
9. Trumpet	8

CHOIR ORGAN.
CC to F in alt.

1. Open Diapason	8
2. Keraulophon	8
3. Stopped Diapason	8
4. Principal	4
5. Flute	4
6. Vox Humana	8

SWELL ORGAN.
F below Tenor C to F in alt.

	FEET.
1. Double Open Diapason	16
2. Open Diapason	8
3. Dulciana	8
4. Principal	8
5. Mixture, 3 ranks	
6. Hautboy	8

PEDAL ORGAN.
CCC to C.

1. Great Double Open Diapason	16
2. Bourdon Diapason	16

ACCESSORY STOPS, ETC.

1. Swell to Great
2. Great to Pedals
3. Choir to Pedals
5 Composition Pedals

City Hall, Glasgow.

The large and fine organ in the City Hall, Glasgow, containing 55 stops, and upwards of 3,000 pipes, is considered to be one of the most complete organs yet erected in Scotland. Each manual has a range of five complete octaves, or 61 notes, extending from CC to C in alt. The pedal clavier has a compass of two octaves and a third, and, besides being capable of connection at will with any or all of the manuals, commands an independent organ of its own.

GREAT ORGAN.

	FEET.
1. Bourdon	16
2. Open Diapason	8
3. Stopped ditto	8
4. Gamba	8
5. Octave	4
6. Piccolo	4
7. Twelfth	3
8. Fifteenth	2
9. Ottavina	2
10. Sesquialtera, 3 ranks	
11. Mixture, 3 ranks	
12. Flute Harmonique	8
13. Ditto ditto	4
14. Posaune	8
15. Clarion	4

CHOIR ORGAN.

	FEET.
1. Open Diapason .....tin	8
2. Clarionet Flute	8
3. Stopped Diapason, Bass ...	8
4. Salcional	8
5. Octave	4
6. Flute	4
7. Fifteenth	2
8. Piccolo	2
9. Corno di Bassetto	8
10. Voix Celeste.....	8

SWELL ORGAN.

1. Bourdon	16
2. Open Diapason.....	8
3. Keraulophon	8
4. Stopped Diapason, Bass.....	8
5. Clarionet Flute	8
6. Octave	4
7. Flute	4
8. Fifteenth	2
9. Flageolet	2
10. Sesquialtera, 3 ranks	
11. Mixture, 2 ranks	
12. Contra Fagotto	16
13. Cornopean	8
14. Oboe	8
15. Voix Humaine.....	8
16. Clarion	4

PEDAL ORGAN.

1. Contra Bourdon	32
2. Open Diapason.....	16
3. Bourdon	16
4. Octave	8
5. Fifteenth	4
6. Trombone.....	16

ACCESSORY STOPS, ETC.

1. Swell to Great, Unison
2. Ditto to ditto, Super Octave
3. Ditto to ditto, Sub Octave
4. Choir to ditto, ditto
5. The Reeds and Harmonic Flutes of Great to Swell, Unison, by a Pedal
6. Swell to Pedals
7. Great to ditto
8. Choir to ditto

There is a tremulant in connection with the swell, and six composition pedals for producing varied combinations of the great organ stops, besides two for the swell; and the organ is further provided with the pneumatic lever for lightening the touch. The last four stops of the great (the harmonic flutes and reeds) are placed on a distinct sound-board, in order that they may be supplied with air at a higher pressure than that allotted to the rest of the great organ; and this pressure is again increased on the upper octaves of these stops. Furthermore, by a peculiar mechanical arrangement, these four stops can at pleasure be thrown out of connection with the great organ keys, and placed under the command of the swell manual.

St. James's Episcopal Church, Leith.

This organ was built by Messrs. Hamilton in 1868, and is placed in the chancel.

GREAT ORGAN.
CC to F in alt.

	FEET.
1. Open Diapason (front)	8
2. Stopped Diapason	8
3. Keraulophon	8
4. Gemshorn	4
5. Principal	4
6. Twelfth	2
7. Fifteenth	2
8. Harmonic Mixture, 4 ranks	
9. Trumpet	8

SWELL ORGAN.
Tenor C to F in alt.

1. Bourdon	16
2. Stopped Diapason	8
3. Open ditto	8
4. Dulciana	8
5. Principal	4
6. Hautboy	8

PEDAL ORGAN.
CCC to C.

Great Double Open Diapason	16

COUPLERS.

1. Swell to Great
2. Great to Pedals

St. Audeon's Church, Dublin.

The following is a description of the new organ built for St. Audeon's Church, Dublin, in 1861, by J. W. Walker, of 27, Francis Street, Tottenham Court Road, London. It is enclosed in a handsome ornamental carved case, designed for the church, with gilt speaking pipes in front, and stands about 30 feet high, 20 feet wide, and 13 feet deep.

GREAT ORGAN.
CC to G in alt. 56 Notes.

FEET.		PIPES.
16	Double Diapason ..... metal	56
8	Open Diapason	56
8	Gamba	56
8	tone. Stopped Diapason	56
4	Principal	56
4	tone. Flute	56
2⅔	Twelfth	56
2	Fifteenth	56
	Full Mixture, 3 ranks	168
	Sharp Mixture, 4 ranks	224
	Trumpet	56
	Clarion	56

CHOIR ORGAN.
CC to G in alt. 56 Notes.

8	Dulciana	56
8	Gemshorn	56
8	tone. Lieblich Gedact	56
4	Spitzflote	56
4	tone. Rohrflote	56
2	Piccolo	56
8	Clarionet, Tenor C	44

SWELL ORGAN.
CC to G in alt. 56 Notes.

FEET.		PIPES.
16	tone. Bourdon	56
8	Spitzflote	56
8	Dulciana	56
8	tone. Rohrflote	56
4	Gemshorn	56
4	Dulcet	56
	Mixture, 4 ranks	224
8	Hautboy	56
8	Horn	56
4	Clarion	56

PEDAL ORGAN.
CCC to Tenor F, 30 Notes.

16	Open Diapason	30
16	tone. Bourdon	30
8	Octave	30
	Mixture, 3 ranks	90
16	Trombone	30
8	Trumpet	30

COUPLERS.

1. Swell to Great
2. Ditto to Choir
3. Sub Octave Swell
4. Super ditto ditto
5. Great to Pedal
6. Choir to ditto
7. Swell to ditto

Tremulant to Swell

8 Composition Pedals, with pneumatic action applied

NUMBER OF PIPES.

Great Organ	952
Choir Organ	380
Swell Organ	728
Pedal Organ	240
Total Number of Pipes...	2300

NUMBER OF STOPS.

Great Organ	12
Choir Organ	7
Swell Organ	10
Pedal Organ	6
Couplers	7
Total Number of Stops...	42

St. Patrick's Cathedral, Dublin.

The original organ in St. Patrick's Cathedral, Dublin, was built by Renatus Harris, in 1697; in confirmation of which the following is extracted from the Chapter book: "12th August, 1695. The Dean and Chapter agree with Renatus Harris, of London, organ builder, to make and set up a double organ for the sum of £505. In the Great Organ: Open Diapason of metal, Stop Diapason of wood, Principal of metal, Nason of wood, a Great Twelfth of metal, Fifteenth of metal, Sexquialtra of metal, a Mixture of metal, a Cornet of metal. In the Little Organ: a Principal of metal, Stop Diapason of wood, Fifteenth of metal, Nason of wood, being in all 13 stops, consisting of 800 pipes, sound-board, &c. &c. The pipes of the old organ to be removed, and to allow £65 for same."

"11th March, 1697. Organ erected and examined by the several Vicars."

"10th May, 1697. Further contract for additional stops for £350, to be paid at Strongbow's Tomb, in Christ Church, on stated times named—viz. Trumpet Stop, Echo Stop, *Tyne Stop* (?), Entire Open Diapason, Flute of metal, Great Furniture of 8 ranks."

By whom the present organ was rebuilt, &c. (probably by Byfield) we have no means of ascertaining; it has evidently been altered and improved of later years by its having a pedal organ of two octaves and two notes. The organ contains:

GREAT ORGAN.
GG to F in alt.

1. Open Diapason
2. Ditto Large ditto
3. Stopped ditto
4. Principal
5. Twelfth
6. Fifteenth
7. Tierce
8. Sesquialtera, 3 ranks
9. Furniture, 3 ranks
10. Cornet from Tenor C, 5 ranks
11. Great Trumpet

CHOIR ORGAN.
GG to F in alt.

1. Stopped Diapason
2. Dulciana
3. Flute
4. Large Principal, Stopped and Open, borrowed from the Great Organ by means of tubes.

SWELL ORGAN.
From Gamut G.

1. Double Diapason
2. Open ditto
3. Stopped ditto
4. Principal
5. Twelfth
6. Fifteenth
7. Hautboy
8. Trumpet

PEDAL ORGAN.
CCC to E.

Two Octaves and Two Notes.

1. Stopped Diapason, 8 feet, Unisons
2. Double Diapason, 16 feet

COUPLERS.

Great to Swell
Pedals to Great

Christ Church Cathedral, Dublin.

The organ in Christ Church Cathedral, Dublin, was originally built by Byfield, of London, in A.D. 1751, but has been altered by various builders, and numerous additions made at different times. It originally consisted of 2½ rows of keys, great and choir organs, GG long octaves to D in alt, swell from fiddle G to D in alt. An excellent swell organ was added in 1845, from CC to F in alt. The older organ formed a portion of the one built by Renatus Harris, for the Temple Church, London. Upon the erection of the present instrument by Byfield, he took the old organ in exchange as *part of* payment, which instrument was sold, after his death,

for £500, for Wolverhampton Church. This organ originally contained a double bassoon to the DD key (DDD pipe), which appears to have been the first double reed introduced into any British organ.

GREAT ORGAN.
GG to F in alt.

1. Double Open Diapason
2. Open Diapason, No. 1
3. Ditto ditto, No. 2
4. Stopped Diapason
5. Principal
6. Twelfth
7. Fifteenth
8. Doublette, 8ve, 15th, and 22nd
9. Sesquialtera, 3 ranks (useless)
10. Trumpet (entirely useless)

CHOIR ORGAN.
GG to F in alt.

1. Open Diapason, from middle D upwards
2. Dulciana
3. Stopped Diapason
4. Principal
5. Flute

SWELL ORGAN.
CC to F in alt.

1. Double Stopped Diapason
2. Open Diapason
3. Dulciana
4. Stopped Diapason
5. Principal.
6. Twelfth
7. Fifteenth
8. Doublette, 8ve 15th, and 22nd
9. Sesquialtera
10. Oboe
11. Trumpet

PEDAL ORGAN.
CC to D.
Two Octaves and Two Notes.

1. Open Diapason, 16 feet
2. Principal, 8 feet

COUPLERS.

Swell to Great
Ditto to Pedals
Great to ditto

Trinity College Chapel, Dublin.

The greater portion of the organ in Trinity College Chapel, Dublin, was built by Telford, of Dublin, 1838. It occupies the case of an organ built by Green, of London. The choir organ of Green's instrument was not removed, on account of its excellence; the swell, great, and pedal organs are alone new.

GREAT ORGAN.
GG to F in alt.

1. Open Diapason
2. Ditto ditto
3. Stopped ditto
4. Principal
5. Twelfth
6. Fifteenth
7. Sesquialtera
8. Trumpet

CHOIR ORGAN.
GG to F in alt.

1. Stopped Diapason
2. Dulciana
3. Principal
4. Fifteenth

SWELL ORGAN.
C, 4 feet. to F in alt.

1. Double Stopped Diapason
2. Open Diapason
3. Dulciana
4. Stopped Diapason
5. Principal
6. Twelfth
7. Fifteenth
8. Oboe
9. Trumpet

PEDAL ORGAN.
GG to C, 8ve and a half.

1. Unison
2. Principal
3. Twelfth
4. Fifteenth
5. Trumpet

COUPLERS.

Swell to Great
Great to Pedals

Roman Catholic Church of St. Nicholas, Dublin.

The organ in the Roman Catholic Church of St. Nicholas, Dublin, was built by Telford, of Dublin.

GREAT ORGAN.
FFF to F in alt.

		FEET.
1.	Great Open Diapason, metal	8
2.	Open Diapason ....ditto	8
3.	Dulciana.....ditto	8
4.	Stopped Diapason ... wood	8
5.	Principal . .....metal	4
6.	Second Principal .....ditto	4
7.	Twelfth .....metal	2⅔
8.	Fifteenth .....ditto	2
9.	Sesquialtera, 3 ranks	
10.	Mixture, 2 ranks	
11.	Trumpet	8
12.	Clarion	4

CHOIR ORGAN.
FFF to F in alt.

1.	Open Diapason .....metal	8
2.	Dulciana .....ditto	8
3.	Stopped Diapason ... wood	8
4.	Principal .....metal	4
5.	Flute .....wood	4
6.	Fifteenth .....metal	2
7.	Cremona.....ditto	8

SWELL ORGAN.
Gamut G to F in alt.

		FEET.
1.	Double Stopped Diapason, wood	16
2.	Open Diapason .....metal	8
3.	Dulciana .....ditto	8
4.	Stopped Diapason.....wood	8
5.	Principal .....metal	4
6.	Twelfth .....ditto	2⅔
7.	Fifteenth .....ditto	2
8.	Sesquialtera, 3 ranks	
9.	Trumpet	8
10.	Hautboy	8

PEDAL ORGAN.
FFF to F.

1.	Double, Open.....wood	16
2.	Unison, ditto.....metal	8
3.	Octave	4
4.	Twelfth.....	2⅔
5.	Fifteenth	2

Roman Catholic Church of St. Francis Xavier, Gardiner Street, Dublin.

The organ in the Roman Catholic Church of St. Francis Xavier, Gardiner Street, Dublin, was built by Flight and Robson, and finished and erected by Gray and Son.

GREAT ORGAN.
FFF to G in alt.

FEET.		PIPES.
16.	Double Diapason, metal and wood	51
8.	Great Open Diapason, metal	63
8.	Small ditto ditto ditto	51
8.	Stopped Diapason ...wood	63
5.	Quint.....metal	51
4.	Principal .....ditto	63
2⅔.	Twelfth.....ditto	63
2.	Fifteenth.....ditto	63
1.	Twenty-Second .....ditto	63
1.	Sesquialtera, 3 ranks, ditto	189
1.	Mixture, 2 ranks	126
8	Trumpet .....metal	63
4.	Clarion.....ditto	63

CHOIR ORGAN.
FFF to G in alt.

8.	Open Diapason ..... metal	63
8.	Dulciana, wood and metal	51
8.	Stopped Diapason ... wood	63
8.	Keraulophon .....metal	44
4.	Principal .....ditto	63
4.	Flute.....wood	51
8.	Fifteenth .....metal	63
8,	Cremona .....ditto	39

SWELL ORGAN.
FF to G in alt.

FEET.		PIPES.
16.	Double Stopped Diapason, Bass .....wood	51
16.	Double Open Diapason, Treble .....metal	
8.	Open Diapason .....ditto	51
8.	Stopped ditto .....wood	51
4.	Principal .....metal	51
4.	Flute.....wood	51
2.	Fifteenth .....metal	51
	Sesquialtera, 3 ranks	153
8.	Cornopean .....metal	51
8.	Trumpet .....ditto	51
8.	Hautboy .....ditto	51
4.	Clarion .....ditto	51

PEDAL ORGAN.
FFF to F.

16.	Double Open Diapason, wood	25
8.	Unison Open Diapason, wood	25
8	Composition Pedals	
4	Couplers	

St. George's Church, Belfast.

The following is a description of the new organ built for St. George's Church, Belfast, in 1863, by J. W. Walker, of 27, Francis Street, Tottenham Court Road, London. It is enclosed in a handsome stained and varnished case, with gilt speaking pipes in front, 19 feet high, 15 feet wide, and 15 feet deep.

GREAT ORGAN.
CC to G in alt. 56 Notes.

FEET.		PIPES.
16	tone. Prepared for Double Diapason	
8	Open Diapason	56
8	Open Diapason, Small	56
8	Dulciana, Tenor C, continued by Stopped Diapason	44
8	tone. Stopped Diapason ...	56
4	Octave	56
4	tone. Flute	56
2⅔	Twelfth	56
2	Fifteenth.....	56
	Prepared for Mixture, 3 ranks	
	Prepared for Trumpet	

SWELL ORGAN.
CC to G in alt. 56 Notes.

16 tone. Double Diapason, metal and wood	56
8 Open Diapason, metal throughout	56
8 Viol di Gamba, Tenor C, continued by Stopped Diapason	44
8 tone. Stopped Diapason	56
4 Gamba	56
4 tone Flute	56
2⅔ Twelfth	56
2 Piccolo	56
Mixture, 3 ranks	168
16 Double Trumpet, Tenor C	44
8 Horn	56
8 Oboe	56
8 Krumhorn	56

PEDAL ORGAN.
CCC to Tenor F, 30 Notes.

16 Open Diapason	30
16 tone. Bourdon	30
8 tone. Octave	30

COUPLERS.

1. Swell to Great
2. Ditto to Pedals
3. Great to ditto

NUMBER OF PIPES.

Great Organ (now inserted)	426
Swell Organ	816
Pedal Organ	90
Total Number of Pipes	1342
Additional Pipes to Great when completed	280
Total Number of Pipes when completed	1622

NUMBER OF STOPS.

Great Organ	8
Swell Organ	13
Pedal Organ	3
Couplers	3
Total Number of Stops	27
Additional Stops to Great when completed	3
Total Number of Stops when completed	30

3 Composition Pedals to Great
3 dito ditto to Swell

The New Church of St. Malachy, Belfast.

The organ in this church was built by Telford, of Dublin, in 1849. It has three complete manuals, from CC to F in alt. The pedal organ, from CCC to E—two octaves and four notes.

GREAT ORGAN.
CC to F in alt.

		FEET.
1. Bourdon	wood	16
2. Tenoroon	metal	16
3. Great Open Diapason.	ditto	8
4. Small ditto ditto	ditto	8
5. Stopped Diapason	wood	8
6. Principal	metal	4
7. Twelfth	ditto	2⅔
8. Fifteenth	ditto	2
9. Doublette	ditto	1
10. Sesquialtera, 3 ranks	ditto	
11. Mixture, 2 ranks	metal	
12. Posaune	ditto	8
13. Clarion	ditto	4

CHOIR ORGAN.
CC to F in alt.

		FEET.
1. Dulciana	metal	8
2. Stopped Diapason	wood	8
3. Claribella	ditto	8
4. Viol di Gamba	metal	8
5. Principal	ditto	4
6. Wald Flute	wood	4
7. Fifteenth	metal	2

SWELL ORGAN.

CC to F in alt.

	FEET.
1. Double Stopped Diapason, wood	16
2. Open Diapason .....metal	8
3. Dulciana .....ditto	8
4. Principal .....ditto	4
5. Twelfth ..... ditto	2⅔
6. Fifteenth .....ditto	2
7. Doublette.....ditto	1
8. Sesquialtera, 3 ranks, ditto	
9. Cornopean ....ditto	8
10. Hautbois .....ditto	8

PEDAL ORGAN.

CCC to E, 29 Notes.

	FEET.
1. Grand Double Open Diapason	16
2. Double Trombone	16
3. Unison Trombone.....	8

ACCESSORY STOPS, ETC.

1. Swell Organ to Great Manual.
2. Ditto to Choir ditto.
3. Ditto to Pedals
4. Great Organ to ditto
4 Composition Pedals

Total, 38 Stops and 1839 Pipes.

The longest pipe is 16 feet long; the shortest, three-eighths of an inch.

St. Patrick's Roman Catholic Chapel, Belfast.

The organ in St. Patrick's Roman Catholic Chapel, Belfast, was built by Gray and Son, in 1840.

GREAT ORGAN.

GG to F in alt.

1. Open Diapason, all through
2. Ditto, ditto
3. Stopped Diapason, ditto
4. Principal, ditto
5. Twelfth, all through
6. Fifteenth, ditto
7. Cornet, ditto
8. Sesquialtera, ditto
9. Mixture, ditto
10. Trumpet, ditto

CHOIR ORGAN.

1. Stopped Diapason, Treble
2. Ditto, Bass
3. Dulciana
4. Principal
5. Flute
6. Claribella
7. Cremona

SWELL ORGAN.

3 Octaves and a half.

1. Open Diapason
2. Double Diapason, Treble
3. Ditto ditto, Bass
4. Stopped Diapason
5. Principal
6. Twelfth
7. Fifteenth
8. Sesquialtera
9. Trumpet
10. Oboe

PEDAL ORGAN.

CCC, 2 Octaves.

1. Double Open Diapason, 16 feet

COUPLERS.

1. Swell to Great Organ
2. Choir Organ to Pedals
3. Great ditto to ditto
4. Double Diapason to Pedals
5. Coupler for combining Double Diapason, to produce mysterious and other effects.

4 Composition Pedals

Ulster Hall, Belfast.

Description of the new organ, built by Messrs. W. Hill and Son, London, for Ulster Hall, Belfast.

GREAT ORGAN.

		FEET.
CC to G in alt 56 Notes.		
1. Double Diapason	metal	16
2. Open ditto	ditto	8
3. Ditto ditto	ditto	8
4. Gamba	ditto	8
5. Stopped Diapason	wood	8
6. Quint	metal	6
7. Octave	ditto	4
8. Harmonic Flute	ditto	4
9. Twelfth	ditto	3
10. Fifteenth	ditto	2
11. Full Mixture, 4 ranks		2
12. Sharp Mixture, 3 ranks		1
13. Double Trumpet		16
14. Posaune		8
15. Trumpet		8
16. Clarion		4

CHOIR ORGAN.

CC to G in alt. 56 Notes		
1. Gelact	wood	16
2. Gamba, Conical	metal	8
3. Keranlophon	ditto	8
4. Stopped Diapason	wood	8
5. Octave	metal	4
6. Rohr Flute	ditto	4
7. Gemahorn Twelfth	ditto	3
8. Flautina	ditto	2
9. Dulciana Mixture, 2 ranks		2
10. Bassoon, Tenor C		16
11. Clarionet		8

SWELL ORGAN.

CC to G in alt. 56 Notes.		
1. Bourdon and Double Diapason	wood and metal	16
2. Open Diapason	metal	8
3. Stopped ditto	wood	8
4. Salcional	metal	8
5. Octave	ditto	4
6. Flauto Traverso	wood	4
7. Twelfth	metal	3
8. Fifteenth	ditto	2
9. Full Mixture, 4 ranks		2
10. Double Trumpet		16
11. Horn		8
12. Trumpet		8
13. Oboe		8
14. Clarion		

SOLO ORGAN.

CC to G in alt. 56 Notes.		
1. Lieblich Gedact, wood and	metal	8
2. Lieblich Flute,	ditto	4
3. Harmonic Flute	ditto	4
4. Vox Humana	metal	8
5. Tuba	ditto	8

PEDAL ORGAN.

CCC to F, 30 Notes.		
1. Double Open Diapason,	wood	32
2. Open Diapason	ditto	16
3. Violone	ditto	16
4. Bourdon	ditto	16
5. Octave	metal	8
6. Octave Bass	wood	8
7. Twelfth	metal	6
8. Fifteenth	ditto	4
9. Trombone	wood	16
10. Clarion	metal	8

ACCESSORY STOPS, ETC.

1. Swell to Great
2. Solo to ditto
3. Great to Pedal
4. Swell to ditto
5. Solo to ditto
6. Choir to ditto

4 Composition Pedals to Great
3 Ditto ditto to Swell
The Great Composition to act also on Pedal Stops
Pneumatic action to Great Organ and Couplers

NUMBER OF STOPS.

Great Organ	16
Choir Organ	11
Swell Organ	14
Solo Organ	5
Pedal Organ	10
Couplers	6
Total Number of Stops	62

Cashel Roman Catholic Cathedral, Ireland.

The organ in Cashel Roman Catholic Cathedral, Ireland,

was erected in 1846, by Bevington and Sons. It is one of the largest organs in the south of Ireland.

GREAT ORGAN.
FFF to F in alt.

	PIPES.
1. Tenoroon .....metal	60
2. Bourdon, Bass, FFFF.....	
3. Open Diapason, FFF, metal	60
4. Principal.....	60
5. Twelfth	60
6. Fifteenth	60
7. Sesquialtera, 4 ranks	240
8. Mixture, 3 ranks	180
9. Stopped Diapason.....	60
10. Trumpet.....	60
11. Clarion	60

CHOIR ORGAN.

1. Open Diapason, FFF, metal	60
2. Dulciana, FF.....	49
3. Stopped Diapason, Treble	60
4. Ditto ditto, Bass, FFF.....	
5. Principal, FFF	60
6. Flute, FFF.....	60
7. Clarionet.....	42
8. Bassoon, Bass, FFF.....	18
9. Fifteenth	60

SWELL ORGAN.
Tenor C to F.

	PIPES.
1. Double Diapason	42
2. Open ditto	42
3. Stopped ditto	42
4. Principal.....	42
5. Flute, Open .....wood	42
6. Cornet, 3 ranks.....	126
7. Cornopean	42
8. Oboe.....	42

PEDAL ORGAN.
Open Wood.
FFFF to CC, 26 feet, 20 pipes.
6 Composition Pedals
4 Couplers

NUMBER OF PIPES.

Great Organ	900
Choir Organ	409
Swell Organ	420
Pedal Organ	20
Total Number of Pipes...	1749

St. Mary's Roman Catholic Church, Cork.

The organ in St. Mary's Roman Catholic Church, Cork, contains 25 stops, as follows:

GREAT ORGAN.
1. Double Diapason, metal
2. Bourdon, ditto
3. Open Diapason
4. Stopped ditto
5. Principal
6. Twelfth
7. Fifteenth
8. Sesquialtera, 3 ranks
9. Trumpet

CHOIR ORGAN.
1. Dulciana
2. Stopped Diapason, Treble
3. Ditto, Bass
4. Principal
5. Fifteenth
6. Flute
7. Cromona

SWELL ORGAN.
1. Double Diapason, wood
2. Open ditto
3. Stopped ditto
4. Principal
5. Fifteenth
6. Sesquialtera, 3 ranks
7. Hautboy

PEDAL ORGAN.
1. Open Diapason, CC.
2. Double Open Diapason, CCC
An Octave and a half of Pedal keys

ACCESSORY STOPS, ETC.
Pedals to Great
Ditto to Choir
3 Composition Pedals

Cashel Cathearal, Tipperary.

This organ was built by Samuel Green, of London, in 1786; and, although small, it is a very good one.

GREAT ORGAN.
1. Open Diapason
2. Stopped ditto
3. Principal
4. Twelfth
5. Fifteenth
6. Sesquialtera
7. Trumpet
8. Cornet

CHOIR ORGAN.
1. Dulciana
2. Stopped Diapason
3. Principal
4. Fifteenth

SWELL ORGAN.
1. Open Diapason
2. Stopped ditto
3. Dulciana
4. Principal
5. Hautboy

An Octave and a half of Pedals

COUPLERS.
For Great and Choir Organs

Cloyne Cathedral.

The organ in this cathedral was erected in the year 1818. It is an organ, considering the size of the choir, of too great magnitude, the choir part being small; and though there are not many stops in comparison with other organs, yet it is very powerful. The diapasons on the great organ are particularly good; to the great organ there has been added an octave and a half of pedals.

GREAT ORGAN.
1. Open Diapason
2. Stopped ditto
3. Principal
4. Flute
5. Twelfth
6. Fifteenth
7. Sesquialtera, half stop
8. Cornet, ditto
9. Trumpet

CHOIR ORGAN.
1. Stopped Diapason
2. Principal
3. Flute

SWELL ORGAN.
1. Open Diapason
2. Principal
3. Trumpet

The cathedral of Cloyne is situated in a retired valley, within about two miles of the southern coast of the county of Cork, and twenty miles of the city, and about eight miles from Queenstown to the east. It is built in the shape of a cross; the choir part is small, and the chancel large; there

is a splendid eastern window of stained glass, and two cross aisles off the chancel, formerly belonging (as private chapels) to two great families of the county, being at that time in the possession of the Roman Catholics. There is a perfect round tower, of a hundred feet high, one of the most perfect in Ireland, within about twenty feet of the walls. It is stated to have been built in the year 604, and, taking it altogether, nothing can exceed it as an ancient piece of architecture.

Cathedral Church of St. Canice, Kilkenny.

This cathedral church originally contained an ancient instrument, which formerly was in a church at Vigo, in Spain, from which it was removed by Sir Francis Drake, when he plundered the town in 1587. It had one row of keys, and contained the following stops:

1. Open Diapason
2. Ditto to Tenor B
3. Stopped Diapason, upper half metal
4. Principal
5. Twelfth
6. Fifteenth
7. Flute
8. Sesquialtera
9. Cornet

The present organ was first erected in the Great Exhibition Building, Dublin, and was afterwards sold to the Dean and Chapter of the above cathedral. The case is Gothic, handsomely carved. The following are its contents:

GREAT ORGAN.
CC to F in alt. 54 Notes.

	PIPES.
1. Open Diapason, No. 1	54
2. Ditto No 2	54
3. Stopped Diapason	54
4. Claribella	
5. Principal	54
6. Twelfth	54
7. Fifteenth	54
8 Sesquialtera, 3 ranks	162
9 Mixture, 2 ranks	108
10. Trumpet	54
11 Clarion	54

CHOIR ORGAN.
CC to F in alt. 54 Notes.

	PIPES.
1. Double Diapason, Bass, closed wood	54
2. Double Diapason, Treble, closed wood	
3. Stopped Diapason	54
4. Dulciana, Tenor C	42
5. Viol di Gamba, Tenor C	42
6. Principal, CC	54
7. Flute, Tenor C	42
8. Cremona, G	42

SWELL ORGAN.
Tenor C to F in alt. 42 Notes.

	PIPES.
1. Double Diapason	42
2. Open ditto	42
3. Stopped ditto	42
4. Principal	42
5 Doublette (15th and 22nd)	84
6. Double Trumpet	42
7. Cornopean	42
8. Clarion	42

PEDAL ORGAN.
CCC to D, 27 Notes.
Great Open Diapason, 16 feet... 27

COUPLERS.
1. Swell to Great
2. Ditto to Choir
3. Pedals to Great
4. Ditto to Choir
5. Ditto to Swell

NUMBER OF PIPES.

Great Organ	
Choir Organ	
Swell Organ	
Pedal Organ	
Total Number of Pipes...	143

NUMBER OF STOPS.

Great Organ	11
Choir Organ	3
Swell Organ	8
Pedal Organ	1
Couplers	5
Total Number of Stops...	28

Limerick Roman Catholic Cathedral.

Messrs. Hill and Son have lately completed a large new organ for the Roman Catholic Cathedral at Limerick, containing the following stops.

GREAT ORGAN.
CC to A in alt.

	FEET.
1. Bourdon and Double Open Diapason	16
2. Open Diapason	8
3. Ditto	8
4. Stopped Diapason	8
5. Octave	8
6. Harmonic Flute	4
7. Twelfth	4
8. Fifteenth	2
9. Mixture, 4 ranks	2
10. Posaune	8
11. Clarion	4

CHOIR ORGAN.
CC to A in alt.

1. Gamba	8
2. Dulciana	8
3. Gedact	8
4. Gemshorn	4
5. Lieblich Flute	4
6. Flautina	2
7. Clarionet	8
8. Mixture, 2 ranks	

SWELL ORGAN.
CC to A in alt.

1. Bourdon	16
2. Open Diapason	8
3. Salcional	8
4. Stopped ditto	8
5. Octave	4
6. Fifteenth	2
7. Mixture, 4 ranks	8
8. Double Trumpet	16
9. Horn	8
10. Oboe	8
11. Clarion	4
12. Vox Humana	8

PEDAL ORGAN.
CCC to F.

1. Open Diapason	16
2. Violone	16
3. Octave	8
4. Fifteenth	4
5. Trombone	16

ACCESSORY STOPS, ETC.

1. Swell to Great
2. Great to Pedals
3. Choir to ditto
4. Swell to ditto
5. Composition Pedals to Great
6. Ditto ditto to Swell

Tuam Cathedral.

The organ in the Cathedral at Tuam was built by Messrs. Bevington and Sons in 1855.

GREAT ORGAN.

	PIPES.
1. Double Diapason	54
2. Open ditto, No. 1	54
3. Ditto ditto, No. 2	54
4. Stopped ditto	54
5. Principal	54
6. Twelfth	54
7. Fifteenth	54
8. Sesquialtera, 3 ranks	162
9. Mixture, 2 ranks	108
10. Trumpet	54
11. Clarion	54

CHOIR ORGAN.

1. Bourdon (8 feet stopped)	12
2. Double Diapason, Treble	42
3. Dulciana	42
4. Stopped Diapason	54
5. Viol di Gamba	42
6. Principal	54
7. Flute	42
8. Cremona	35

SWELL ORGAN.
To Tenor C.

1. Double Diapason	42
2. Open ditto	42
3. Stopped ditto	42
4. Principal	42
5. Mixture, 2 ranks	84
6. Double Trumpet	42
7. Cornopean	42
8. Hautboy	42

PEDAL ORGAN.

	PIPES.
1. Open Diapason, 16 feet	27
2. Principal, 8 feet	27
3. Great Posaune, 16 feet	27

ACCESSORY STOPS, ETC.

1. Pedals to Great
2. Ditto to Choir
3. Swell to Great
4. Ditto to Choir
5. Composition Pedals
6. Octaves and 2 Notes of German Pedals (CC to D)

NUMBER OF PIPES.

Great Organ	756
Choir Organ	323
Swell Organ	378
Pedal Organ	81
Total Number of Pipes	1538

NUMBER OF STOPS.

Great Organ	11
Choir Organ	8
Swell Organ	8
Pedal Organ	3
Couplers	4
Total Number of Stops	34

St. John's Cathedral, Newfoundland.

The organ in St. John's Cathedral, Newfoundland, was

built by Robson in 1853. It contains 46 sounding stops, as follows:

GREAT ORGAN.
CC to G in alt. 56 Notes.

FEET.		PIPES.
16 tone.	Double Diapason, Bass, Double Diapason	56
8.	Large Open Diapason	56
8.	Open Diapason	56
8 tone.	Stopped Diapason	56
6.	Quint	56
4.	Principal	56
3⅕.	Tenth	56
2.	Twelfth	56
2.	Fifteenth	56
	Sesquialtera, Mixture, Furniture — 10 ranks	560
16.	Contra Fagotto	56
8.	Posaune	56
4.	Clarion	56

CHOIR ORGAN.
CC to G in alt. 56 Notes.

8.	Dulciana	56
8.	Viol di Gamba	44
8 tone.	Stopped Diapason	56
8.	Claribella Flute	44
4.	Celestina Viol	56
4.	Principal	56
4.	Flute	56
2.	Piccolo	56
	Mixture, Dulciana Scale, 3 ranks	168
8 tone.	Bassoon, Clarionet	56

SWELL ORGAN.
CC to G in alt. 56 Notes.

16 tone.	Double Diapason, Bass, Double Diapason	56
8.	Open Diapason	56
8 tone.	Stopped Diapason	56
4.	Principal	56
2.	Fifteenth	56
	Sesquialtera Mixture — 5 ranks	280
8.	Horn	56
8.	Oboe	56
4.	Clarion	56
2.	Octave Clarion	56

PEDAL ORGAN.
CCC to F, 30 Notes.

16.	Open Diapason	
16 tone.	Stopped Diapason	
8.	Principal	
8 tone.	Basso Flauto	
16.	Trombone	
8.	Trumpet	

COUPLERS.

1. Swell to Great
2. Ditto to Pedals
3. Great to ditto
4. Choir to ditto

NUMBER OF PIPES.

Great Organ	1232
Swell Organ	840
Choir Organ	648
Pedal Organ	136
Total Number of Pipes...	2856

NUMBER OF STOPS.

Great Organ	16
Swell Organ	13
Choir Organ	11
Pedal Organ	6
Couplers	4
Total Number of Stops...	50

Oporto Crystal Palace, Portugal.

The following is a description of a large and fine organ, built by Mr. J. W. Walker, of Francis Street, Tottenham Court Road, which gained a prize medal at the International

Exhibition of 1862, and which has since been purchased for the Oporto Crystal Palace. The instrument stands 30 feet high, 25 feet wide, and 12 feet deep. The whole of the metal pipes are made of superior metal. This organ was exhibited, not only as a specimen of good work, but to show that the touch of a large organ may be so constructed as to avoid the expense and liability to disarrangement of the pneumatic action.

GREAT ORGAN.
CC to G in alt. 56 Notes.

		FEET.
1.	Double Open Diapason,	metal 16
2.	Open Diapason	ditto 8
3.	Gamba	ditto 8
4.	Flute Traverso	wood 8
5.	Stopped Diapason, 8 ft. tone,	wood
6.	Principal	metal 4
7.	Gamba	ditto 4
8.	Twelfth	ditto 2⅔
9.	Fifteenth	ditto 2
10.	Full Mixture, 3 ranks,	ditto
11.	Sharp ditto, 4 ranks,	ditto
12.	Trumpet	ditto 8
13.	Clarion	ditto 4

CHOIR ORGAN.
CC to G in alt. 56 Notes.

1.	Gemshorn	metal 8
2.	Dulciana	ditto 8
3.	Vox Angelica	ditto 8
4.	Leiblich Gedact, 8 feet tone,	wood
5.	Spitzflute	metal 4
6.	Flute, 4 feet tone,	metal and wood
7.	Piccolo	wood 2
8.	Clarionet	metal 8

SWELL ORGAN.
CC to G in alt. 56 Notes.

1.	Double Stopped Diapason, 16 feet tone,	wood
2.	Open Diapason	metal 8
3.	Viol di Gamba	ditto 8
4.	Stopped Diapason, 8 ft. tone,	metal and wood
5.	Hohl Flute	wood 4
6.	Principal	metal 4
7.	Twelfth and Fifteenth,	metal 2⅔ & 2
8.	Mixture, 4 ranks	metal
9.	Double Trumpet	ditto 16
10.	Horn	ditto 8
11.	Hautboy	ditto 8
12.	Clarion	ditto 4

SOLO ORGAN.
CC to G in alt. 56 Notes.

1.	Open Diapason	metal 8
2.	Harmonic Flute	ditto 8
3.	Ditto ditto	ditto 4
4.	Tuba Mirabilis	ditto 8

PEDAL ORGAN.
CCC to G, 32 Notes.

1.	Sub Bass, 32 feet tone,	wood
2.	Open Bass	ditto 16
3.	Stopped Bass, 16 feet tone,	wood
4.	Principal	ditto 8
5.	Mixture, 3 ranks	metal
6.	Trombone	ditto 16
7.	Trumpet	ditto 8

ACCESSORY STOPS, ETC.

1. Great to Pedals
2. Swell to ditto
3. Choir to ditto
4. Solo to ditto
5. Swell to Great
6. Ditto to Choir
4 Composition Pedals to Great and Pedal
3 Composition Pedals to Swell and Pedal
Tremulant to Swell

NUMBER OF PIPES.	
Great Organ	1008
Choir Organ	436
Swell Organ	896
Solo Organ	200
Pedal Organ	288
Total Number of Pipes...	2828

NUMBER OF STOPS.	
Great Organ	12
Choir Organ	8
Swell Organ	12
Solo Organ	4
Pedal Organ	7
Couplers	6
Total Number of Stops...	50
Sounding Stops	44

Bombay Cathedral.

The following is a description of the large and fine organ built by Messrs. Bishop and Starr for the Cathedral, Bombay. The case and wood pipes are made of solid mahogany.

GREAT ORGAN.
CC to G in alt.

	FEET.
1. Open Diapason	8
2. Bell Diapason	8
3. Stopped Diapason, Bass } 4. Claribella }	8 ft. tone.
5. Principal	4
6. Flute	4
7. Twelfth	3
8. Fifteenth	2
9. Sesquialtera, 3 ranks	
10. Trumpet	8

CHOIR ORGAN.
CC to G in alt.

1. Dulciana	8
2. Stopped Diapason, Bass } 3. German Flute }	8 ft. tone.
4. Keraulophon	8
5. Metallic Flute	4
6. Principal	4
7. Piccolo	2
8. Cremona	8

SWELL ORGAN.
CC to G in alt.

1. Double Diapason, 16 ft. tone	
2. Open Diapason	8
3. Stopped Diapason, 8 ft. tone	
4. Principal	4
5. Fifteenth	2
6. Cornopean	8
7. Hautboy	8

PEDAL ORGAN.
CCC to E.

1. Open Diapason, Bass, wood	16
2. Ditto ditto ditto, metal	16
3. Bourdon, 16 feet tone	
4. Principal ...metal	8
5. Fifteenth ...ditto	4
6. Prepared for Reed	

ACCESSORY STOPS, ETC.

1. Great to Pedals
2. Choir to ditto
3. Swell to ditto
4. Ditto to Great
5. Ditto to Choir
6. Sub Swell to Choir
7. Super Swell to Great
8 Composition Pedals to Great
2 Ditto ditto to Choir
1 Ditto ditto to Swell

Tremont Temple, Boston, United States.

The following is an account of the large organ built by

Messrs. E. and G. Hook for the Tremont Temple, United States, which is reprinted from the description circulated by the builders at the time of the opening of the instrument, in 1854. The swell is throughout; and there is an independent pedal organ. Wind is supplied by three bellows at different pressures. It contains 70 registers, comprising every variety of tone, and embracing all the novelties of the most celebrated European organs.

It occupies a space at the end of the hall, 50 feet high, and 50 feet wide, and is concealed by an open-work screen. The following are the stops in this instrument:

GREAT ORGAN.
CC to A in alt. 58 Notes.

1. Tenoroon Open Diapason
2. Grand ditto ditto
3. Open Diapason
4. Melodia
5. Stopped Diapason
6. Grand Principal
7. Principal
8. Twelfth
9. Grand Fifteenth
10. Fifteenth
11. Sesquialtera, 2 ranks
12. Mixture, 3 ranks
13. Furniture, 4 ranks
14. Trumpet
15. Clarion

CHOIR ORGAN.
CC to A in alt. 58 Notes.

1. Open Diapason
2. Dulciana
3. Stopped Diapason
4. Principal
5. Fifteenth
6. Mixture, 3 ranks
7. Hohl Flute
8. Viol d'Amour
9. Clarionet
10. Bassoon

SWELL ORGAN.
CC to A in alt. 58 Notes.

1. Sub Bass
2. Double Diapason
3. Open ditto
4. Viol di Gamba
5. Stopped Diapason
6. Principal
7. Night Horn
8. Twelfth
9. Fifteenth
10. Sesquialtera, 3 ranks
11. Trumpet, Bass
12. Ditto, Treble
13. Hautboy
14. Clarion
15. Double Trumpet

SOLO ORGAN.
CC to A in alt. 58 Notes.

1. Horn Diapason
2. Gamba
3. Claribella
4. Wald Flute
5. Piccolo
6. Trumpet

PEDAL ORGAN.
CCC to D, 27 Notes.

		FEET.
1.	Double Diapason	32
2.	Bourdon	16
3.	Open Diapason.....wood	16
4.	Ditto ditto .....metal	16
5.	Ditto ditto	8
6.	Violoncello	8
7.	Quint	6
8.	Principal	4
9.	Trombone	8
	Posaune	16

ACCESSORY STOPS, ETC.

1. Swell to Great, Unison
2. Ditto to ditto, Super Octave
3. Choir to ditto, Sub Octave
4. Swell to Choir, Unison
5. Ditto to Solo, ditto
6. Solo to Great, ditto
7. Swell to Pedals
8. Great to ditto
9. Choir to ditto
10. Pedal Octaves
11. Pedal Bourdon, Separation
12. Pedal Open Diapason ditto
13. Solo Organ Signal
14. Bellows Signal

"The distinguishing features of this organ are the unusual size, compass, and effectiveness of the swell, the complete pedal organ, and the solo or fourth manual—the latter an uncommon thing, even in Europe. These, combined with perfect equality and finish in the voicing, and an easy and delicate touch, place the instrument far in advance of any yet built in this country, and put it at least on a level with the celebrated organs of England and the continent."*

Music Hall, Boston, United States.†

The grand organ in the Music Hall, Boston, United States (described as the "Great Monster Organ of the New World"), was built by E. F. Walcker and Son, of Ludwigsburg, Wurtemburg. It was begun in 1857, and finished in 1863.

"Some of the most important stops are the bifra, in the choir, with its double set of pipes and tremolo; the physharmonica, in the choir, a free reed without pipes, with a

* The Editor is not responsible for the American organ-builder's "notions" respecting the superiority of this organ over all others built in his own country; certainly it was built before the Monster Organ was projected for the Music Hall at Boston. The organ, no doubt, is a very good one; but when they place it "at least on a level with the celebrated organs of England and the Continent," they are very wide of the mark.

† Extracted from the *New York Musical Review and World.*

swell of its own; the great mixture of 5 ranks in the pedal, which gives a ground tone of 32 feet in harmonics, sub-bass 16 feet, quint $10\frac{2}{3}$ feet, octave 8 feet, tenth $5\frac{1}{3}$ feet, and fifteenth 4 feet; and a vox humana in the solo, with double pipes, swell, and tremulant of its own.

"There are six pairs of large bellows-feeders, which gather the wind into a huge reservoir, containing about 400 cubic feet. There are several smaller ones, distributors, making in all fifteen pairs of bellows. These are worked by a machine, which is propelled by water, derived from the reservoirs. The case, or *orgel-gehause*, is of black walnut, and is covered with carved statues, busts, masks, and figures in bold relief. It is about 47 feet in width; the two projecting central towers are 60 feet high. Its weight is from 60 to 70 tons. The most prominent parts are two great round towers each side of the central arch, which contains the niche for the manuals and stops. In the front of the base of each tower, a gigantic half-caryatid, Atlas-like, bends under the immense weight. At each side of the base, a caryatid, with lion's head, and herma-shape, assists the giant in his task. Over the base, rise the round pillars which support the dome, and inclose three great pipes, which, like those that are visible, are made of burnished tin. Crowning these pipes is a round, heavily sculptured dome, surmounted by two cherubs playing upon musical instruments. Over the key-board is a bust of Bach, looking sternly down upon the performer. Behind and above rises the central division, which is connected to the great central towers, already described, by harp-like compartments, also harp-shaped, and filled with pipes. The central division is crowned by a sitting statue of St. Cecilia. Two other compartments, also harp-shaped, and filled with pipes,

connect the round towers to the two lateral square ones of campanile shape, formed by richly carved pilasters with Corinthian capitals, each sustaining two great pipes. Over these compartments, close to the round towers, sit two harpers, of life-size, a man on the right, a woman on the left. At the base of the square towers are three female caryatids, of Egyptian style. The four pillars are square, as is also the dome (?), which is surmounted by a base containing figures of various musical instruments. The intervals between the towers about the base are filled with bas-reliefs of musical instruments, from the violin to the chime of sleigh-bells, masks, laurel wreaths, &c. In front, on tablets of black marble, in letters of gold, appear the names of eight composers: Palestrina, Lasso, Handel, Haydn, Gluck, Mozart, Mendelssohn, and Cherubini. Bach is represented by a noble portrait bust; while, just in front of the centre, raised on a pedestal, stands Crawford's bronze statue of the great master, Beethoven."

The following is a synopsis of the contents of this organ:

GREAT ORGAN.

FEET.		PIPES.
16.	Principal (or Double Diapason)..... Of pure English tin: the 24 largest pipes displayed in front.	58
16	Tibia Major..... Of pine wood—borrows the lower octave from Principal	46
16.	Viola Major	58
16. 8.	Basson (Bassoon) } ..... Ophicleid } Complements to each other. Free reeds, turned by a screw. Chiefly of wood, but bells of upper octaves tin	58
8.	Principal (Diapason)	58
8.	Flote (Flute)..... Wood, double width, with double mouths	58
8.	Gemshorn	58
8.	Viola di Gamba..... Pure tin	58
8.	Gedackt (Stop Diapason)	58
8. 4.	Trombone } ..... Trumpet } Of proof tin Octave (Engl. Principal)... Pure tin	58
5.	Fugara (pure tin).....	58
4.	Hohlflote (hollow-toned flute)..... metal	58
4.	Flute d'Amour ..... Of pine & pear-wood, slender	58
4.	Clairon (Clarion) ..... Reed stop, of proof tin, trumpet-like; in the highest octave 2 open flue pipes in unison replace the reeds	70

FEET.		PIPES.
2.	Waldflote (Flute of the Woods) .....proof tin	58
5⅓.	Quint (Fifth).....proof tin	58
3⅕.	Terz (Tenth)..... ditto	58
2⅔.	Quintflote (Flute Twelfth) proof tin	58
1⅗.	Terz Discant (Seventeenth) proof tin	53
5⅓.	Cornet, 5 ranks..... Harmonics of 16 feet tone; take their ground tones from Quint. Compass from G to A 3, 38 Notes	190
2⅔.	Mixture, 6 ranks..... Harmonics of 8 feet tone. Proof tin	348
1⅓.	Scharff, 4 ranks..... Harmonics of 4 feet tone. Proof tin	232
	CHOIR ORGAN.	
16.	Gedackt	58
8.	Principal Flute..... Pure English tin; larger pipes displayed	58
8.	Spitzflote ..... A pointed or conical flute of tin	58
8 & 4.	Bifra, 2 ranks ..... Of tin; each note has two pipes, one stopped, the other (its octave) open and slender. It has also a *tremolo*.	116
8.	Gedackt .....wood	58
8. 4.	Clarin Bass } Ditto Discant } Reeds, trumpet-like, of proof tin	58
8.	Viola .....proof tin Of soft intonation, like the piano in Physharmonica	58
8.	Physharmonica ..... Purely metal reeds, with a swell	58
4.	Hohlpfeife ..... Lowest octaves, of maple, the rest of metal. Very bright and liquid flute tone	58
4.	Principal Flute .....tin	58
4.	Dolce (Dulciana).....tin	58
2.	Flautino (Octave Flute)..	58

FEET.		PIPES.
2⅔ & 1⅗.	Sesquialtera, 2 ranks	116
1.	Super Octave .....tin	58
	SWELL ORGAN.	
16.	Bourdon (Double Stop Diapason).....	58
8.	Principal.....proof tin	58
8.	Salcional..... Proof tin, slender. Tone like a dulciana of reedy quality, but a little stronger	58
8.	Dolce (Dulciana) ..... Of metal; one of the softest stops	58
8.	Quintaton ..... A stopped pipe of tin, sounding its harmonic fifth (or twelfth) with the ground tone	58
8.	Gedackt (Stop Diapason) Wood; double width; double mouths in upper octaves. Very full round tone, with other stops	58
8. 4.	Trombone Bass (Trombone) Trombone Disct. (Trumpet), bells of brass }	58
8.	Basson Bass (Bassoon) ...	58
4.	Hautbois (Oboe)	
4.	Principal Octave ..... Proof tin	58
4.	Rohrflote ..... What English builders call a "half-stopped pipe," of metal. French: *Flute a Cheminée*	58
4.	Traversflote (Traverse Flute) ..... Two lowest octaves of fir and pear-wood, square, slender. The rest of maple, turned, like the actual German flute; double length, pierced in the middle, and overblown, i.e. sounding the octave	58
4.	Cornettino ..... Soft, trumpet-like, of tin, 12 highest pipes doubled, and true pipes	70

FEET.		PIPES.
5⅓.	Quintflote	58
2⅔.	Nasard (Twelfth) ....tin	58
2.	Octave ....tin	58
2.	Mixture, 5 ranks	290

SOLO ORGAN.

16.	Bourdon (Stopped Diapason)	58
	Two lowest octaves of wood, the rest metal	
8.	Gamben Principal, pure tin	58
8.	Aeoline	58
	The softest and most string-like stop of all; lower octave of wood, continuation, of proof tin, very slender	
8.	Concert Flute	58
	Of finest pine-wood, square. From C upward of double length, pierced, and blowing the octave	
8.	Corno Bassetto	58
	Reed stop of clarionet-like tone; bells of tin	
8.	Vox Humana	116
	Of metal, with two pipes to each note, one of them a reed pipe, and partly with double reeds. Also has a special swell and tremulant	
4.	Gemshorn ....proof tin	58
4 & 2.	Piffaro, 2 ranks	116
4.	Vox Angelica	58
	A delicate reed stop	
2⅔.	Quint	58
	A covered pipe of metal	
2.	Piccolo (Octave Flute), metal	58

PEDAL ORGAN.

32.	Principal Bass (Double Double Diapason)	30
	Six of the largest pipes of pure English tin, the rest wood	
32.	Grand Bourdon, 5 ranks	120
	A compound stop, having for foundation Sub Bass 16 feet, which, with four ranks of harmonic tones, *gives the 32 feet sound*	

FEET.		PIPES.
32.	Bombardon	30
	A monster reed tone, with screw tuning apparatus	
16.	Octave Bass	30
	Pure tin; 13 pipes in front	
16.	Sub Bass	30
	Strong wood, open, of very wide scale	
16.	Trombone	30
	Powerful reed tone; bulk of zinc	
16.	Contra Violon....wood	30
8.	Octave Bass....tin	30
8.	Hohlfloten Bass (Hollow Flute Bass)	30
8.	Violoncello ....tin	30
8.	Trumpet	30
4.	Corno-Basso	30
4.	Octave ....tin	30
2.	Cornettino ....tin	30
	N.B.—The following stops are placed in the swell box.	
16.	Bourdon (Double Stopped Diapason)	30
8.	Viola	30
	Of tin; soft Gamba tone	
8.	Flute ....wood	30
4.	Flute	30
16.	Basson (Bassoon)	30
	A very powerful deep reed tone, tuned with screw	
2.	Waldflote ....metal	30

NUMBER OF PIPES.

Great Organ	1930
Choir Organ	928
Swell Organ	1172
Solo Organ	754
Pedal Organ	690
Total Number of Pipes	5474

NUMBER OF STOPS.

Great Organ	25
Choir Organ	15
Swell Organ	18
Solo Organ	11
Pedal Organ	20
Total Number of Stops	89

"There are 12 pedal combination movements for producing various changes and connections."

1. Zungen Stimmen, draws all the reeds of the Great Organ.
2. Fortissimo Hauptwerk, draws all the Great Organ, exeept the Scharff, Cornet, and Reeds.
3. Forte Hauptwerk, draws one 16 feet, five 8 feet, and four 4 feet stops of the Great Organ.
4. Piano Hauptwerk, draws the 8 feet stops of the Great Organ.
5. Solo Orgel, draws Corno and Bassetto of Solo Organ.
6. Volleswerk, draws Full Organ.
7 to 12. Pedal Couplers.

"There is, situated over the manuals of the great organ, within the reach of the thumbs of the performer, a set of small knobs—couplers—which control the couplings of the several manuals. One of the most important mechanical contrivances is the crescendo and diminuendo pedal, by which the performer is enabled to bring out, one by one, *ad lib.* each stop of the organ to its fullest capacity, and *vice versâ*.

"These 89 stops, all or nearly all run through, thus making them equal to about 180 in an English or American organ.

"Over the manuals, on a tablet of black marble, in letters of gold, is this inscription:

E. F. WALCKER & Co.
LUDWIGSBURG, KDM. WURTEMBERG.
O. P. C. C.
BEGUN, FEB. 1857. FINISHED, OCT. 1863.

"Just over the niche for the key-boards, and under the bust of Bach, is the motto, "Gloria in Excelsis." Conspicuous on the gabled pediment of the left square tower appears in a shield the seal of the city of Ludwigsburg: on the left, that of the city of Boston, with its motto, "Sicut patribus, sic Deus nobis." In the centre of the lateral

SWELL ORGAN.

	FEET.
1. Bourdon, 16 feet tone	
2. Open Diapason	8
3. Stopped Diapason, 8 ft tone	
4. Dulciana	8
5. Principal	4
6. Fifteenth	2
7. Mixture, 3 ranks	
8. Trumpet	8
9. Oboe	8
10. Clarion	4

PEDAL ORGAN.

	FEET.
1. Open Diapason	16
2. Bourdon, 16 feet tone	
3. Octave	8

COUPLERS.

1. Swell to Great
2. Ditto Octave to Great
3. Ditto to Choir
4. Choir to Great
5. Choir Sub Octave to Great
6. Great to Pedal
7. Choir to ditto
8. Swell to ditto
9. Pedal Organ Octave

By means of Mr. G. Jardine's Pallet, the touch is relieved from all disagreeable stiffness, although there are 5 manual couplers, upwards and downwards as well as in unison.

CHAPTER XVI.

ORGANS IN BELGIUM, FRANCE, AUSTRIA, GERMANY, PRUSSIA, HOLLAND, ITALY, RUSSIA, SPAIN, SWEDEN, AND SWITZERLAND.

The Cathedral, Antwerp.

The organ in the Cathedral at Antwerp was built by De la Hague, of Antwerp, in 1645, and repaired by Folder, of Brussels, in 1834.

GREAT ORGAN.

CC to F in alt.

	FEET.
1. Montre	16
2. Bourdon, 16 feet tone	
3. Montre	8
4. Bourdon, 8 feet tone	
5. Flute Traversiere	8
6. Gross Nazard	5⅓
7. Prestant	4
8. Flute	4
9. Nazard	2⅔
10. Doublette	2
11. Tierce	1⅗
12. Fourniture	
13. Cimbal	
14. Cornet	
15. Bombarde Discant / Ditto Basse	16
16. Trompette Discant / Ditto Basse	8
17. Clarion	4
18. Voix-humaine, 8 feet tone	

CHOIR ORGAN.
CC to F in alt.

1. Montre 8
2. Bourdon, 8 feet tone
3. Prestant 4
4. Flute, 4 feet tone
5. Nasard 2⅔
6. Doublette 2
7. Fourniture
8. Cornett
9. { Trompette Discant / Ditto Basse } ... 8
10. Hautbois 8

SWELL ORGAN.
CC to F in alt.

1. Montre Discant 8
2. Bourdon, 8 feet tone

FEET.

3. Prestant 4
4. Flute 4
5. Doublette 2
6. Cromhorne 8

PEDAL ORGAN.
FFF to Tenor F.

1. Montre 16
2. Bourdon, 16 feet tone
3. Prestant 8
4. Bourdon, 8 feet tone
5. Prestant 4
6. Flute 4
7. Fourniture
8. Bombarde..... 16
9. Trompette..... 8
10. Clarion 4

St. Paul's Church, Antwerp.

The organ in the Church of St. Paul, Antwerp, was built by Terbrugen, of Antwerp, in 1670, and was repaired and improved in 1825. The pedal-board is very inconveniently arranged, and the touch is disagreeable; otherwise it is a very satisfactory instrument, and rather superior to that in the cathedral. The following is a list of its stops:

GREAT ORGAN.
CC to F in alt.

FEET.

1. Principal 16
2. Bourdon, 16 feet tone
3. Montre 8
4. Bourdon, 8 feet tone
5. Quintaton, 8 feet tone
6. Grand Nazard 6
7. Prestant 4
8. Flute 4
9. Flute Traverse..... 4
10. Gros Tierce 3⅕
11. Nasard 3
12. Doublette 2
13. Fourniture
14. Cimbale
15. Cornett
16. Bombarde..... 16
17. { Trompette Discant / Ditto Basse } 8

FEET.

18. Clarion 4
19. Vox Humaine..... 8

CHOIR ORGAN.
CC to F in alt.

1. Bourdon, 8 feet tone
2. Viol di Gamba..... 8
3. Prestant 4
4. Flute 4
5. Flute Traverse 4
6. Nazard 3
7. Doublette 2
8. Flute Champ 2
9. Tierce 1⅗
10. Fourniture
11. Cornett
12. Trompette 8
13. Hautbois 8
14. Vox Angelica 8
15. Bassoon 8

ECHO ORGAN.
CC to F in alt.

	FEET.
1. Bourdon, 8 feet tone	
2. Prestant	4
3. Flute	4
4. Nazard	3
5. Doublette	2
6. Tierce	1⅗
7. Fourniture	
8. Cornett	
9. Trompette	8
10. Vox Humaine	8

PEDAL ORGAN.
CCC to Tenor C.

	FEET.
1. Prestant	16
2. Quintaton, 16 feet tone	
3. Flute	8
4. Prestant	4
5. Bombarde	16
6. Trompette	8
7. Clarion	4

Cathedral Church of St. Gudule, Brussels.

The following is a list of the stops in the organ of the Cathedral Church of St. Gudule, Brussels:

GREAT ORGAN.

	FEET.
1. Bordun Discant, 32 ft. tone	
2. Montre	16
3. Bordun, 16 feet tone	
4. Prestant	8
5. Bordun, 8 feet tone	
6. Octave	4
7. Flute	4
8. Nazard	2⅔
9. Doublette	2
10. Tierce	1⅗
11. Quint	1⅓
12. Fourniture	
13. Cymballes	
14. Cornet	
15. Cornet, lowest rank / Bordun	16
16. Bombarde	16
17. Trompette	8
18. Clarion, Bass	4

CHOIR ORGAN.

1. Bordun, 16 feet tone	
2. Ditto 8 ditto	
3. Flute	8
4. Prestant	4
5. Flute	4
6. Nazard	2⅔
7. Octave	2
8. Tierce	1⅗
9. Larigot	1⅓
10. Fourniture	
11. Cornet	
12. Hautbois	8

ECHO ORGAN.

1. Prestant	8
2. Bordun, 8 feet tone	
3. Octave	4
4. Flute	4
5. Doublette	2
6. Fourniture	
7. Trompette	8

PEDAL ORGAN.

1. Montre	16
2. Bourdon, 16 feet tone	
3. Flute	8
4. Bourdon, 8 feet tone	
5. Quinte	5⅓
6. Flute	4
7. Quarte	2
8. Buzain	32
9. Bombarde	16
10. Trompette	8

St. Martin's Church, Liège.

The organ in St. Martin's Church, Liège, was built by

Clerinex, at a cost of £1000. The following is a list of the stops:

GREAT ORGAN.

	FEET
1. Bourdon, 16 feet tone	
2. Ditto 8 ditto	
3. Principal	8
4. Gamba	8
5. Flute Travers	8
6. Prestant	4
7. Flute Pointue	4
8. Super Octave	2
9. Sesquialtera, 3 ranks	3
10. Fourniture, 4 ranks	
11. Cornet, 4 ranks	
12. Trompette	8
13. Clarion	4
14. Cromhorne	8

CHOIR ORGAN.

1. Salcional	8
2. Bourdon, 8 feet tone	
3. Prestant	4
4. Old Flute	4
5. Super Octave	2
6. Sesquialtera	
7. Cornet	
8. Trompette	8
9. Hautbois	8

ECHO ORGAN.

1. Bourdon, 8 feet tone	
2. Prestant	4
3. Flageolet	2
4. Super Octave	2
5. Cornet	
6. Trompette	8

PEDAL ORGAN.

1. Montre ..... metal	16
2. Flute, Open ..... wood	16
3. Soubasse, 16 feet tone	
4. Montre	8
5. Bombarde*	16
6. Bombarde	8

* The CCC pipe, 12 inches in diameter.

The Cathedral, Abbeville, France.

The organ in the Cathedral at Abbeville is placed over the west entrance, where it has a majestic appearance. The case of the great organ has five towers, with the smallest one in the centre; the choir organ case has three towers, with the largest one in the centre. The 16 feet montre stands in front, and is of polished tin. The organ is an old one, and originally belonged to the Church of St. George, which building was completely demolished in the Revolution of 1793. The organ escaped sharing the same fate through the care of Honoré Blondin, the nephew of whom is the present organist. The instrument was enlarged and thoroughly repaired by M. Charles Lefevre, of Abbeville, about twenty years since. There are four manuals: the lower one for the choir organ; the second for the great organ; the third for

the pedal organ, which is of the same compass as the other organs; and the fourth for the swell organ. The manuals are coupled together by being drawn out about half-an-inch. It contains the following stops:

GREAT ORGAN.
CC to F in alt.

	FEET.
1. Montre (throughout)	16
2. Bourdon (ditto) 16 ft. tone	
3. Montre	8
4. Bourdon, 8 feet tone	
5. Flute	8
6. Prestant	4
7. Flute	4
8. Flute Tacet	4
9. Nazard	2⅔
10. Doublette	2
11. Flute	2
12. Fourniture	
13. Grand Cornett	
14. Trompette	8
15. Ditto	8
16. Clarion	4
17. Cromorne (throughout)	8
18. Voix Humaine	8

CHOIR ORGAN.
CC to F in alt.

1. Bourdon, 8 feet tone	
2. Montre	4
3. Flute à Chéminée	4
4. Nazard	2⅔
5. Super Octave	2
6. Doublette	2
7. Petit Nazard	1⅗
8. Fifre	1
9. Fourniture	
10. Hautbois Tacet	8
11. Clarion	4
12. Cromorne (throughout)	8

SWELL ORGAN.
Tenor F to F in alt.

1. Dulciana	8
2. Flute	4
3. Nazard	2⅔
4. Flute	2
5. Hautbois	8
6. Trompette	8

PEDAL ORGAN.
CC to F.
Pedal-board from CCC to Tenor F, two Octaves and a half.

1. Flute Allemande		16
2. Flute		8
3. Ditto		4
4. Musette		
5. Bombarde	wood	16
6. Trompette	metal	8

The Cathedral, Amiens, France.

The organ in the Cathedral at Amiens, which has a 16 feet front, was completed in 1429, and was built at the expense of Alphonse de Myrhe, one of the chamberlains of King Charles the Sixth. It still retains its interesting antique appearance, and stands at the west end of the nave, with the west entrance below, and a handsome circular window, filled with stained glass, above. The following is a synopsis of the stops:

GREAT ORGAN.

	FEET.
1. Montre	16
2. Bourdon, 16 feet tone	
3. Montre	8
4. Bourdon, 8 feet tone	
5. Flute	8
6. Prestant	4
7. Nazard	2⅔
8. Doublette	2
9. Tierce	1⅗
10. Fourniture	
11. Cornett	
12. Bombarde	16
13. Trompette	8
14. Ditto	8
15. Clarion	4
16. Vox Humaine	8

CHOIR ORGAN.

1. Montre	8
2. Bourdon, 8 feet tone	
3. Flute	8
4. Prestant	4
5. Nazard	2⅔
6. Doublette	2
7. Tierce	1⅗
8. Plein Jeu	
9. Cornett	
10. Trompette	8
11. Cromorne, 8 feet tone	

RECIT ORGAN.

1. Bourdon, 8 feet tone	
2. Flute	8
3. Prestant	4
4. Cornett	
5. Trompette	8
6. Hautbois	8

PEDAL ORGAN.

1. Flute	16
2. Bourdon, 16 feet tone	
3. Flute	8
4. Ditto	4
5. Bombarde	16
6. Trompette	8
7. Clarion	4

St. Remy, Amiens, France.

The organ in the Church of St. Remy, at Amiens, was built by the monks of St. Basil, and finished by them in the year 1842, at a cost of £1000.

GREAT ORGAN.

CC to F in alt. 54 Notes.

	FEET.
1. Bourdon, 16 feet tone	
2. Montre	8
3. Bourdon, 8 feet tone	
4. Prestant	4
5. Dulciana	4
6. Flute	4
7. Nazard	2⅔
8. Doublette	2
9. Fourniture	
10. Cornet	
11. Trompette	8
12. Ditto	8
13. Voix Humaine, 8 feet tone	
14. Clairon	4

CHOIR ORGAN.

CC to F in alt. 54 Notes.

1. Bourdon, 8 feet tone	
2. Prestant	4
3. Flute	4
4. Nazard	2⅔
5. Doublette	2
6. Quarte de Nazard	2
7. Fourniture	
8. Cornet	
9. Cremona (through), 8 ft. tone	
10. Clairon	

SWELL ORGAN.

Tenor C to F in alt. 42 Notes.

1. Bourdon, 8 feet tone	
2. Prestant	4
3. Flute	4
4. Nazard	2⅔
5. Hautbois	8
6. Trompette	8

PEDAL ORGAN.

FFF to Tenor F, 25 Notes.

1. Flute	16
2. Ditto	8
3. Bombarde	16
4. Trompette	8

The Cathedral at Beauvais, France.

The following is a list of the stops contained in the organ in the Beauvais Cathedral:

FIRST MANUAL.
(*Choir Organ.*)
CC to F in alt. 54 Notes.

	FEET.
1. Montre	8
2. Cornet, 5 ranks, beginning at C	
3. Bourdon, 8 feet tone	
4. Flute, beginning at 2nd C	8
5. Prestant	4
6. Nazard	2⅔
7. Doublette	2
8. Tierce	1⅗
9. Fourniture, 3 ranks	
10. Cymbale, 2 ranks	
11. Trompette	8
12. Clairon (treble octaviant)	4
13. Cromorne, 8 feet tone	
14. Basson	8

SECOND MANUAL.
(*Great Organ.*)
CC to F in alt. 54 Notes.

1. Grand Cornet, begining at B flat	
2. Montre	16
3. Bourdon, 16 feet tone	
4. Montre	8
5. Bourdon, 8 feet tone	
6. Flute	8
7. Grosse Nazard	5⅓
8. Prestant	4
9. Grosse Tierce	3⅕
10. Nazard	2⅔
11. Quarte de Nazard	2
12. Tierce	1⅗
13. Grosse Fourniture	
14. Fourniture	
15. Cymbale	
16. Gamba	8
17. First Trompette	8
18. Second Trompette	8
19. Clairon	4

THIRD MANUAL.
(*Clavier des Bombardes.*)
CC to F in alt. 54 Notes.

	FEET.
1. Grand Cornet, beginning at A	
2. Bombarde	16
3. Trompette de Bombarde (large scale)	8
4. Clairon (large scale)	4

FOURTH MANUAL.
(*Recit. Echo.*)
CC to F in alt. 54 Notes.

1. Flute	8
2. Flute Harmonique	8
3. Bourdon, 8 feet tone	
4 Salcional	8
5. Principal	4
6. Quinte	2⅔
7. Doublette	2
8. Flute Douce	4
9. Quintadène	2
10. Tierce	1⅗
11. Trompette	8
12. Cor Angiais	8
13. Hautbois	8
14. Voix Humaine, 8 feet tone	

FIFTH MANUAL.
(*Orgue Expressif.*)
CC to F in alt. 54 Notes.

1. Conoclyte	
2. Euphonie	
3. Terpomèle	

PEDAL ORGAN.
FFF to Tenor F, 25 Notes.

1. Open Flute	wood	16
2. Flute	ditto	8
3. Bourdon, 16 ft. tone	ditto	
4. Contre Basse	ditto	16
5. Flute	ditto	4
6. Quinte		5⅓
7. Bombarde		24
8. Trompette		12
9. Clairon		6
10. Dermogloste		

There are various couplers forming numerous combinations, some being effected by pedals and others by registers.

There are 19 bellows, worked by two men.

The stops of the fourth manual are enclosed in a swell-box; and those of the fifth are expressive by the sole pressure of the air, which the organist modifies at pleasure by means of a double pedal, which serves as supports for his feet.*

Abbey Church of St. Denis, near Paris.

The organ in the Abbey Church of St. Denis is a particularly fine instrument. It was built by MM. Cavaillé Coll, organ builders of Paris; and was opened on the 21st of September, 1841. The clavier des bombardes is not furnished with a separate manual, as at the Madelaine, but communicates with the great organ keys. Among the most remarkable features in this organ is the adjustment of the wind. Not only are the reed stops placed on a heavier wind than those of the flue species, but the upper octaves of all the stops are in common supplied with a stronger blast than the lower. There are also several stops of a novel kind, called by Cavaillé "harmonique," which sound the octave above the note that the length of the pipe would indicate. Number of pipes, 4506.†

FIRST MANUAL.
(*Positif.*)
CC to F in alt. 54 Notes.

	FEET.
1. Bourdon, 16 feet tone	
2. Salcional	8
3. Bourdon, 8 feet tone	
4. Prestant	4
5. Quinte	2⅔
6. Flute	4
7. Doublette	2
8. Tierce	1⅗
9. Fourniture, 4 ranks	
10. Cymbale, 4 ranks	
11. Flute Harmonique	8

* The stops on the fifth manual are all free reeds, the same as in the harmonium.—EDITOR.

† In Chorley's "Music and Manners in France and Germany," this organ is highly spoken of. He says, "there was a sweetness and sonorousness of tone which I have not met in any French instrument."

	FEET.
12. Flute Octaviante	2
13. Flageolet Harmonique	4
14. Trompette Harmonique	8
15. Cor d'Harmonie et Hautbois	8
16. Cromorne	8
17. Clairon Octaviant	4

SECOND MANUAL.
(*Grand Orgue.*)
CC to F in alt. 54 Notes.

1. Montre	32
2. Montre	16
3. Montre	8
4. Viole	8
5. Bourdon, 16 feet tone	
6. Bourdon	8
7. Flute Traversière Harmonique	8
8. Flute Octaviant Harmonique	4
9. Prestant	4
10. Nazard	2⅔
11. Doublette	2
12. Grosse Fourniture, 4 ranks	
13. Grosse Cymbale, ditto	
14. Petit Fourniture, ditto	
15. Petit Cymbale, ditto	
16. First Trompette Harmonique	8
17. Second Trompette Harmonique	8
18. Basson et Cor Anglais	8
19. Clairon Octaviant	4
20. Cornet à Pavillon	8

THIRD MANUAL.
(*Bombarde.*)
CC to F in alt. 54 Notes.

1. Grand Cornet, 7 ranks	
2. Bourdon, 16 feet tone	
3. Bourdon, 8 feet tone	
4. Flute	4
5. Prestant	4
6. Quinte	2⅔
7. Doublette	2
8. Bombarde	16
9. First Trompette de Bombarde	8
10. Second Trompette Harmonique	8
11. First Clairon Harmonique	4
12. Second Clairon Octaviant	4

FOURTH MANUAL.
(*Recit. et Echo Expressifs.*)
CC to F in alt. 54 Notes.

1. Bourdon, 8 feet tone	
2. Flute Harmonique	8
3. Flute Octaviante Harmonique	4
4. Octavin Harmonique	2
5. Quinte	2⅔
6. Trompette Harmonique	8
7. Clairon Harmonique	4
8. Voix Humaine	8

CLAVIER DE PEDALES.

1. Flute Ouverte (sounding at 16 feet)	32
2. Ditto ditto (ditto 24 feet)	16
3. Ditto ditto (ditto 12 feet)	8
4. Ditto ditto (ditto 6 feet)	4
5. Gros Quinte	5⅓
6. Basse Contre (ditto 24 feet)	16
7. Bason (ditto 12 feet)	8
8. Bombarde (ditto 24 feet)	16
9. 1st Trompette (ditto 12 feet)	8
10. 2nd ditto (ditto ditto)	8
11. 1st Clarion (ditto 6 feet)	4
12. 2nd ditto (ditto ditto)	4

As the pedals extend from FFF to tenor F, the flute of 16 feet (No. 2) begins at 24 feet, and so on with the others, except the flue of 32 feet, which is not carried down.

There are nine composition (or *combination*) pedals placed above the pedal-keys:

The 1st serves to open or close the shutters of the box in which the pipes of the 4th manual are enclosed.

The 2nd brings the stops of the 4th manual on to the 2nd manual.

The 3rd brings the stops of the 3rd manual on to the 2nd manual.

The 4th brings on the stops of the 2nd manual at the pleasure of the player.

The 5th brings the stops of the 1st manual on to the 2nd manual.

The 6th adds to the foundation stops of the 1st manual, the treble of the reeds and of the harmonic stops on this same manual.

The 7th adds the bass of these same stops to the foundation stops.

The 8th brings on the pedal key-board the basses of all the mannals.

The 9th gives the octave below of the keys pressed down with the fingers.

There are 11 grand reservoirs for the wind, supplied by 5 feeders.

It was in this organ that Barker's "levier pneumatique" was first used.

Church of St. Eustace, Paris.

The first organ at the Church of St. Eustace, Paris, having been destroyed by fire on the 16th of December, 1844, the present one was erected to replace it. The large organ, now in the above church, was built in 1854, by Mr. Barker, acting as director of an extensive organ manufactory, in Paris.* There are 12 horizontal bellows, supplied by double feeders, worked by 4 men. The largest

* MM. Danblaine and Callinet, and M. Ducroucet.

front pipe sounds the G below the 16 feet C. It also has the pneumatic lever attachment.

For the number and variety of its solo stops, and the importance of its pedal, it stands unrivalled among the organs of the French capital.

The following is a list of the stops in this fine organ, the particulars of which the editor received direct from Mr. Barker.

FIRST MANUAL.
(*Choir Organ.*)
CC to F in alt. 54 Notes.

	FEET.
1. Stopped Diapason	8
2. Keraulophon	8
3. Open Diapason	8
4. Salicional	4
5. Harmonic Flute	8
6. Ditto ditto	4
7. Mixture, 5 ranks	
8. First Hautbois	
9. Second ditto (free reeds)	
10. Clarinette	8
11. Bassoon	8
12. Cor Anglais	16
13. Trumpet	8
14. Clarion	4

SECOND MANUAL.
(*First Great Organ.*)
CC to F in alt. 54 Notes.

1. Open Diapason	8
2. Double Open Diapason	16
3. Stopped Diapason	8
4. Flute	4
5. Flute à Pavillon	8
6. Harmonic Flute	8
7. Principal	4
8. Twelfth	6
9. Fifteenth	2
10. Furniture, 5 ranks	
11. Sesquialtera, 4 ranks	
12. Cornet, 5 ditto	
13. First Trumpet	8
14. Second ditto	8
15. Euphone (free reed)	16
16. Clarion	4

THIRD MANUAL.
(*Second Great Organ.*)
CC to F in alt. 54 Notes.

	FEET.
1. Salicional	8
2. Stopped Diapason	8
3. Gamba	8
4. Bourdon, 16 feet tone	
5. Gamba	16
6. Quintaton	8
7. Salicional	4
8. Trumpet	8
9. Bombarde, or Double Trumpet	16
10. Clarion	4

FOURTH MANUAL.
(*Swell Organ.*)
CC to F in alt. 54 Notes.

1. Harmonic Flute	8
2. Ditto ditto	4
3. Stopped Diapason	8
4. Bourdon, 16 feet tone	
5. Euphone (free reed)	8
6. Hautbois	8
7. Voix Humaine	8
8. Trumpet	8
9. Trombone	16
10. Clarion	4
Tremolo	
Sonnette	

PEDAL ORGAN.
(*Clavier de Pédales.*)

1. Double Diapason	32
2. Ditto ditto	16
3. First Open Diapason	8
4. Second ditto	8
5. Principal	4
6. Bourdon, 16 feet tone	

	FEET.		FEET.
7. Contra Bass	16	13. Basson	4
8. Violoncello	8	14. First Trumpet	8
9. Salicional	8	15. Second ditto	8
10. Ditto	16	16. Bombarde	32
11. Basson	16	17. Ditto	16
12. Ditto	8	18. Clarion	4

Compass of Pedal Organ, CCC to F, 30 Notes.

ACCESSORY STOPS, ETC.

1. The Lower Octaves of Manuals on Pedal-board
2. Introduction of the Reed Stops of First Manual
3. Ditto of stops in general of Second Manual
4. Ditto ditto ditto of Pedal Organ
5. Coupler, Choir to Great Organ
6. Ditto Second Great Organ to First Great Organ
7. Ditto Swell to First Great Organ
8. Ditto First, Second, and Fourth Manuals to Third Manual
9. Introduction of Reeds of the Swell
10. Octave Coupler on the Second and Third Manual
11. Swell Pedal

Church of the Madelaine, Paris.

The fine organ in the Church of the Madelaine, at Paris, was built by MM. Cavaillé Coll, and completed in 1846. It was opened on the 29th of October of the same year. The organ contains the following stops:

FIRST MANUAL.
(*Choir Organ*).
CC to F in alt. 54 Notes.

	FEET.
1. Montre	8
2. Viola di Gamba	8
3. Flute Douce	8
4. Voix Célestes	8
5. Prestant	4
6. Dulciana	4
7. Octavin	2
8. Trompette	8
9. Basson et Hautbois	8
10. Clairon	4

SECOND MANUAL.
(*Great Organ*).
CC to F in alt. 54 Notes.

1. Montre	16
2. Violon Basse	16
3. Montre	8
4. Salicional	8
5. Flute Harmonique	8
6. Bourdon	8
7. Prestant	4
8. Quinte	3
9. Doublette	2
10. Plein Jeu, 10 ranks	
11. Trompette	8
12. Cor Anglais	8

THIRD MANUAL,
(*Clavier des Bombardes.*)
CC to F in alt. 54 Notes.

1. Sous Basse	16
2. Basse	8
3. Flute Harmonique	8
4. Flute Traversière	8
5. Flute Octaviante	4
6. Octavin	2
7. Bombarde	16
8. Trompette Harmonique	8
9. Second Trompette	8
10. Clairon	4

FOURTH MANUAL.
(*Swell Organ*).
CC to F in alt. 54 Notes.

	FEET.
1. Flute Harmonique	8
2. Bourdon	8
3. Flute Octaviante	4
4. Octavin	2
5. Trompette Harmonique	8
6. Clairon Harmonique	4
7. Musette	8
8. Voix Humaine	8

PEDAL ORGAN.
CCC to Tenor D, 27 Notes.

1. Quintaton	32
2. Contre Basse	16
3. Violoncelle	8
4. Grosse Flute	8
5. Bombarde	16
6. Basse Centre	16
7. Trompette	8
8. Clairon	4

COMBINATION PEDALS, ETC.

1. Choir to Great
2. Great to Pedal
3. Bombarde to Choir
4. Pedal to Great
5. Great Organ Sub Octave
6. Bombarde Sub Octave
7. Pedal Octave above
8. Tremulant to Choir and Swell
9. Great Reeds
10. Bombarde Reeds
11. Choir ditto
12. Swell ditto
13. Pedal ditto
14. Swell Pedal

St. Sulpice, Paris.

The large organ at St. Sulpice, in Paris, originally had 5 manual organs: great, choir, bombarde, recit. and echo, besides the pedal organ, as at Rouen; but the number of manuals has, within the last few years, been reduced to 4, and many new stops introduced by MM. Cavaillé Coll. It originally had 14 pairs of bellows, 6 feet in length, and 3½ feet in breadth; 6 for the great organ, 4 for the choir, &c. and 4 for the pedal organ. The stops are as follows:

GREAT ORGAN.

	FEET.
1. Montre, upper pipes pewter, lower ones wood	32
2. Montre ..... pewter	16
3. Bourdon, 16 ft. tone, wood	
4. Montre ..... pewter	8
5. Bourdon, 8 ft. tone, wood	
6. Flute ..... metal	8
* 7. Gamba	8
* 8. Salicional	8
9. Prestant	4
10. Nasard	2⅔
11. Doublette ..... pewter	2
12. Tierce	1⅗
13. Fourniture } 9 ranks	
*14. Ditto }	
15. Cymbale, 4 ranks	
16 Cornett, 5 ranks	
*17. Euphone	8
18. Trompette ..... pewter	8
19. Ditto ..... ditto	8
20. Clarion ..... ditto	4
*21. Clarion	4
*22. Clarinette	8

The great organ originally contained 21 stops, and including those marked with an asterisk, which are subsequent

insertions, and introduced chiefly in the place of a grosse nazard, 5⅓ feet; quarte de nazard, 2 feet; grosse tierce, 3⅕ feet; voix humaine; and a third trumpet.

POSITIF, OR CHOIR ORGAN.

	FEET.
1. Bourdon, 16 feet tone	
2. Montre	8
3. Bourdon, 8 feet tone	
4. Flute	8
5 Gamba	8
6. Prestant	4
7. Dulciana	4
8. Nazard	2⅔
9. Doublette	2
10. Fourniture, 5 ranks	
11. Cymbale, 4 ranks	
12. Cornett, 5 ranks	
13. Trompette	8
14. Clarion	4
15. Bassoon	8
*16. Hautbois	8
17. Clarionette	8
18. Cromorne	8

The original positif specification included a quarte de nazard, tierce, and larigot, for which a gamba, dulciana, and hautbois have been substituted, as indicated by the asterisks above.

RECIT EXPRESSIF.

	FEET.
1. Bourdon, 16 feet tone	
2. Flute	8
3. Flute Harmonique	8
4. Bourdon, 8 feet tone	
5. Prestant	4
6. Cornett, 5 ranks	
7. Trompette	8
8. Hautbois	8
9. Cor Anglais	8
10. Voix Humaine	8

CLAVIER DES BOMBARDE.

1. Bombarde	16
2. Trompette	8
3. Clarion	4
4. Cornett, 5 ranks	

PEDAL ORGAN.

	FEET.
* 1. Flute	32
2. Ditto	16
* 3. Bourdon, 16 feet tone	
4. Flute	8
5. Ditto	8
6. Ditto	4
7. Bombarde	32
8. Ditto	16
9. Trompette	8
10. Ditto	8
*11. Bassoon	8
12. Clarion	4

The pedal organ originally contained a 32 feet sounding stop only (grosse bourdon, 32 feet tone), which has been removed, and a wood open stop, or, as it is labelled, a flute of 32 feet, placed in its stead. There was also a grosse nazard, 10⅔ feet, which has made way for a bourdon of 16 feet tone; and a bassoon has likewise been added. See asterisks.

St. Vincent de Paul, Paris.

The organ in the Church of St. Vincent de Paul, Paris, was built by MM. Cavaillé Coll, and is quite on an equality with the same builders' admirable instrument at the Madelaine, both in regard to tone and perfectness of finish in the mechanism. It stands at the west end of the church, and is divided, so as not to obstruct the light through the west window. The following is a list of the stops:

GREAT ORGAN.
CC to F in alt. 54 Notes.

	FEET.
1. Montre	16
2. Bourdon, 16 feet tone	
3. Montre	8
4. Gamba	8
5. Bourdon, 8 feet tone	
6. Prestant	4
7. Flute	4
8. Quinte	2⅔
9. Doublette	2
10. Fourniture, 5 ranks	
11. Cymbale, 3 ranks	
12. Trompette	8
13. Cornet à Pavillon	8
14. Clairon	4

CHOIR ORGAN.
CC to F in alt. 54 Notes.

1. Bourdon, 16 feet tone	
2. Flute Harmonique	8
3. Salicional	8
4. Bourdon, 8 feet tone	
5. Prestant	4
6. Flute Octaviante	4
7. Doublette	2
8. Octavin Harmonique	2
9. Trompette	8
10. Cromorne, 8 feet tone	

SWELL ORGAN.
CC to F in alt. 54 Notes.

1. Flute Harmonique	8
2. Bourdon, 8 feet tone	
3. Prestant	4
4. Flute Douce	4
5. Voix Celeste	8
6. Trompette Harmonique	8
7. Cor Anglais	8
8. Voix Humaine, 8 feet tone	

PEDAL ORGAN.
CCC to Tenor C, 25 Notes.

1. Grand Bourdon, 32 ft. tone	
2. Montre	16
3. Contre Basse	16
4. Flute Ouverte	8
5. Bombarde	16
6. Basse Contre	16
7. Trompette	8
8. Clairon	4

ACCESSORY STOPS, ETC.

1 to 8. Manual and Pedal Couplers
Pneumatic lever attachment
14 Composition Pedals

St. Ouen, Rouen.

The organ in the magnificent Church of St. Ouen, at Rouen, was built in 1630. It has 12 pairs of bellows; and contains the following stops:

GREAT ORGAN.
(Fourth Manual.)

	FEET.
tre ...metal throughout	16
rdon .....throughout	16
tre	8
rdon	8
tant	4
.....	2½
.....	2
.....	1½
rniture	
bale	
ons de Trompette	8
t Humaine	8
ion	4

CHOIR ORGAN.
(Lower Manual.)

tant	8
rdon	8
tant	4
.....	4
ird	2⅔
ilette	2
.....	1⅓
ett	
abel	
a Jeu	
.....	8
oon et Hautbois	8
pette	4
.....	4

ECHO ORGAN.
(Upper Manual.)

	FEET.
1. Flute	8
2. Cornett	
3. Trompette	8
4. Clarion	4

RECIT. ORGAN.
(Second Manual.)

1. Bourdon	8
2. Flute	4
3. Cornett	
4. Hautbois	8
5. Trompette.....	8
6. Clarion	4

BOMBARDE ORGAN.
(Third Manual.)

1. Bombarde.....	16
2. Trompette.....	8
3. Clarion	4
4. Cornett	

PEDAL ORGAN.
Two Octaves Compass.

1. Prestant	16
2. Gamba	16
3. Prestant	8
4. Quint.....	5⅓
5. Prestant	4
6. Bombarde.....	16
7. Trompette	8
8. Clarion	4

The Cathedral, Strasbourg.

asbourg has long been famous for its bell-founders, nakers, and organ-builders. So early as the end of h century there were several organs in its cathedral, rious in their structure and sonorous in their tone. e present instrument was built by Silbermann, of ourg, and was completed in August, 1716. It has ws, 12 feet by 6. The organ is placed on the north the nave, where it projects from the triforium about above the pavement of the cathedral. The following particulars of the organ:

GREAT ORGAN.
CC to C in alt. 49 Notes.

	FEET.
1. Bourdon, 16 feet tone	
2. Montre.....tin	8
3. Bourdon, 8 feet tone	
4. Prestant	4
5. Nazard	2⅔
6. Doublette	2
7. Tierce.....	1⅗
8. Fourniture	
9. Cymbal	
10. Cornet, 5 ranks	
11. {Trompette, Discant / Ditto, Basse} ...	8
12. Trompette.....	8
13. {Clairon, Discant / Ditto, Basse}	4

CHOIR ORGAN.
CC to C in alt. 49 Notes.

1. Montre.....tin	8
2. Bourdon, 8 feet tone	
3. Prestant	4
4. Flute	4
5. Nazard	2⅔
6. Doublette	2
7. Tierce	1⅗
8. Larigot	1⅓
9. Fourniture	
10. Cymbal	
11. {Cromhorn, Discant / Ditto, Basse} ...	8

ECHO ORGAN.
CC to C in alt. 49 Notes.

1. Montre.....tin	8
2. Gamba	8
3. Bourdon, 8 feet tone	
4. Salicional	8
5. Prestant	4
6. Flute	4
7. Flute Magique.....	4
8. Doublette	2
9. Hautbois	8
10. Vox Humaine.....	8
11. {Trompette, Discant / Bassoon, Basse} ...	8

PEDAL ORGAN.
CCC to Tenor C, 25 Notes.

1. Montre.....tin	16
2. Bourdon, 16 feet tone	
3. Montre	8
4. Prestant	4
5. Bombarde.....	16
6. Trompette	8
7. Clarion	4

ACCESSORY STOPS, ETC.

1. Tremulant to Great
2. Tremulant to Echo

The echo and choir manuals couple to the great by being drawn out a little.*

Temple Neuf, Protestant Church, Strasbourg.

The organ in the Protestant Church, called the Temple Neuf, is also the work of Silbermann. It is an excellent instrument throughout; but is especially remarkable for the beauty of its metal diapasons and metal flutes, which are of great excellence. The stops are as follows:

* This is the old shifting movement, a very uncertain mode of coupling; because, if the manuals are not drawn out quite even, it *throws the* whole of those movements out of order.—EDITOR.

GREAT ORGAN.

		FEET.
1.	Bourdon, 16 feet tone	
2.	Montre	8
3.	Bourdon, 8 feet tone	
4	Quintaton	8
5.	Prestant	4
6.	Flute, 4 feet tone	
7.	Quint	2⅔
8.	Doublette	2
9.	Tierce	1⅗
10.	Fourniture, 3 ranks	1
11.	Cymbal, 3 ranks	2
12.	Cornet, 5 ranks	
13.	Trompette, Discant / Ditto, Basse	8
14.	Clairon, Discant / Ditto, Basse	4

CHOIR ORGAN.

		FEET.
1.	Bourdon, 8 feet tone	
2.	Salicional	8
3.	Prestant	4
4.	Flute, 4 feet tone	
5.	Jeu Celeste	4
6.	Doublette	2
7.	Larigot	1⅓
8.	Hautbois, Discant	8
9.	Cromorne	8
10.	Cor de Basset	8

ECHO ORGAN.

		FEET.
1.	Bourdon, 16 feet tone	
2.	Montre	8
3.	Bourdon, 8 feet tone	
4.	Viol di Gamba	8
5.	Prestant	4
6.	Flute, 4 feet tone	
7.	Doublette	2
8.	Siffiute	1
9.	Fourniture, 3 ranks	
10.	Cornet, 4 ranks	
11.	Trumpet	8
12.	Bassoon	8
13.	Voix Humaine	8

PEDAL ORGAN.

1.	Principal	wood	16
2.	Bourdon, Open	ditto	16
3.	Octave		8
4.	Violoncello		8
5.	Prestant		4
6.	Plein Jeu, 2 ranks		
7.	Bombarde	metal	16
8.	Trompette	ditto	8
9.	Clairon	ditto	4

The compass is not named in the description from which this is taken, but it is presumed to be the same as the two previous organs.

St. Thomas's Church, Strasbourg.

The organ in St. Thomas's Church, Strasbourg, is also the work of Silbermann, and bears the date 1740. It has undergone some alterations by Weltzer, a resident organ builder in Strasbourg. The following is a list of the stops:

GREAT ORGAN.

CC to C in alt. 49 Notes.

		FEET.
1.	Bourdon, stopped metal to Tenor C, then wood, 16 feet tone	
2.	Montre	8
3.	Bourdon, metal, 8 feet tone	
4.	Salicional	
5.	Prestant	

	FEET.
6. Flute	4
7. Nazard	2⅔
8. Doublette	2
9 Fourniture, 4 ranks	
10. Cornett, 5 ranks	
11. Trompette, Discant / Ditto, Basse	8
12. Clairon, Discant / Ditto, Basse	4
13. Vox Humaine	8

CHOIR ORGAN.

CC to C in alt. 49 Notes.

	FEET.
1. Bourdon, metal, 8 feet tone	
2. Quintadena	8
3. Prestant	4
4. Cordedain	4
5. Flute	4
6. Nazard	2⅔
7. Doublette	2
8. Cromorne	8

ECHO ORGAN.

CC to C in alt. 49 Notes.

	FEET.
1. Montre	8
2. Viola di Gamba	8
3. Bourdon, metal, 8 feet tone	
4. Salcional, 8 feet tone	
5. Flute	4
6. Cordedain (a kind of flaut traverse) ....metal	4
7. Trompette	8
8. Bassoon	8

PEDAL ORGAN.

CCC to Tenor C, 25 Notes.

	FEET.
1. Principal ....wood	16
2. Octave	8
3. Quint	6
4. Prestant	4
5. Bombarde ....wood	16
6. Trompette ....metal	8
7. Clairon ....ditto	4

The echo and choir manuals move and couple to great organ.

Cathedral, Tours.

The cathedral organ at Tours, which was built by J. B. U. Le Fevre, of Rouen, possesses immense power. It has 13 pairs of bellows. The stops are as follows:

GREAT ORGAN.

	FEET.
1. Grosse Principal	32
2. Sub Bourdon, 32 feet tone	
3. Prestant	16
4. Bourdon, 16 feet tone	
5. Montre	8
6. Prestant	8
7. Principal	8
8. Bourdon, 8 feet tone	
9. Quint	6
10. Octave	4
11. Ditto	4
12. Tierce	3⅕
13. Quint	3
14. Doublette	2
15. Tierce	1⅗
16. Quint	1⅓
17. *Mixture*, 15 ranks	
18. Cornett, 5 ranks	
19. First Trompette	8
20. Second ditto	8
21. Third ditto	8
22. First Clarion	4
23. Second ditto	4

CHOIR ORGAN.

	FEET.
1. Bourdon, 16 feet tone	
2. Principal	8
3. Prestant	8
4. Bourdon, 8 feet tone	
5. Octave	4
6. Quint	3
7. Octave	2
8. Doublette	2
9. Tierce	1⅗
10. Quint	1⅓
11. Mixture, 9 ranks	

	FEET.
nett, 5 ranks	
mpette	8
ion	4
morne	8
Humana	8
AVIER DES BOMBARDE.	
rdon, 8 feet tone	
ave	4
nett, 5 ranks	
nbarde	16
mpette	8
rion	4
FOURTH MANUAL.	
Cornet, Fifth, Echo, &c.	
ves as a general echo to	
Great Organ.	

	FEET.
PEDAL ORGAN.	
1. Grosse Principal	16
2. Octave	8
3. Prestant	8
4. Quint	6
5. Octave	4
6. Flute	4
7. Tierce	3⅕
8. Quint	3
9. Octave	2
10. Tierce	1⅗
11. Bombarde	32
12. Trompette	16
13. Ditto	8
14. Clarion	4
15. Ditto	2

Royal Catholic Church, Dresden.

ne fine organ in the Royal Catholic Church, Dresden, eemed Silbermann's masterpiece. Gottfried Silber- died during its progress; and it was finished by his ew, John Daniel Silbermann, of Strasbourg, who had his assistant in the work. It was completed and d in 1754. It is spoken of as being distinguished s magnificent tone.

FIRST CLAVIER.
(Great Organ.)
CC to D in alt.

	FEET.
ncipal	16
rnet, 5 ranks	
urdon, 16 feet tone	
hrflöte, 8 feet tone	
inta	2⅔
rtia	1⅓
mbel, 3 ranks	
mpette	8
incipal	8
ol di Gamba	8
tave	4
itsflöte	4
tave	2
xture, 4 rauks	
gotto	16
arion	4

SECOND CLAVIER.
(Upper or Echo Organ.)
CC to D in alt.

	FEET.
1. Principal	8
2. Quintatön, 16 feet tone	
3. Unda Maris, 8 feet tone	
4. Gedackt, 8 feet tone	
5. Octava	4
6. Quintatön, 8 feet tone	
7. Rohrflöte, 4 feet tone	
8. Nassat	2⅔
9. Octave	2
10. Tertia	1⅗
11. Flageolet	1
12. Mixture, 4 ranks	
13. Vox Humana, 8 feet tone	
14. Echo, 5 ranks (in a closed case)	

THIRD CLAVIER.

(Lower or Choir Organ.)

CC to D in alt.

	FEET.
1. Principal	4
2. Gedackt, 8 feet tone	
3. Rohrflöte, 4 feet tone	
4. Nassat	2⅔
5. Octave	2
6. Sesquialtera, 2 ranks	
7. Quinta	1⅓
8. Sifflöte	1
9. Mixture, 3 ranks	
10. Chalmeaux, 8 feet tone	

PEDAL ORGAN.

CCC to Tenor C.

	FEET.
1. Principal, Bass.....wood	16
2. Untersatz, 32 feet tone	
3. Pausan .....metal	16
4. Trompette	8
5. Clarin	4
6. Octave-Bass	8
7. Octava	4
8. Mixture, 6 ranks	

ACCESSORY STOPS, XIII.

1. Echo to Great
2. Great to Pedal
3. Tremulant to Echo
4. Ditto to Great

St. Mary's Church, Dresden.

The organ in the Church of our Lady, at Dresden, was built by Gottfried Silbermann, and completed in 1786. It contains the following stops:

GREAT ORGAN.

	FEET.
1. Principal	16
2. Octave	8
3. Cornet, 5 ranks	
4. Viol di Gamba	8
5. Octave	4
6. Rohrflöte, 8 feet tone	
7. Spitzflöte	4
8. Quinta	2⅔
9. Octava	2
10. Tertia	1⅗
11. Mixture, 4 ranks	
12. Cymbel, 3 ranks	
13. Fagott	16
14. Trompete	8

CHOIR ORGAN.

1. Principal	4
2. Gedackt, 8 feet tone	
3. Rohrflöte, 4 feet tone	
4. Nassat	2⅔
5. Octava	2
6. Gemshorn	2
7. Quinta	1⅓
8. Sifflöte	1
9. Mixture, 3 ranks	
10. Chalmeaux, 8 feet tone	

ECHO ORGAN.

	FEET.
1. Principal	8
2. Quintadena, 16 feet tone	
3. Gedackt, 8 feet tone	
4. Octava	4
5. Quintatön, 8 feet tone	
6. Rohrflöte, 4 feet tone	
7. Nassat	2⅔
8. Octava	2
9. Tertia	1⅗
10. Mixture, 4 ranks	
11. Vox Humana, 8 feet tone	

PEDAL ORGAN.

1. Untersatz, wood, 32 ft. tone	
2. Principal, Bass	16
3. Pausan .....metal	16
4. Octave, Bass	8
5. Octave	4
6. Mixture, 6 ranks	
7. Trompete	8
8. Clarin Bass	4

NEBEN-REGISTER.

1. Tremulant
2. Schwebung
3. Bass Ventil
4. Coppel
5. Klingel

Royal Church of the Evangelists, Dresden.

e organ in the Royal Church of the Evangelists, m, was completed and erected by G. Silbermann, in It has the following stops:

GREAT ORGAN.

	FEET.
cipal	8
nflöte	8
rdon, 16 feet tone	
rflöte, 8 feet tone	
ıet, 4 ranks	
ve	4
ıshorn	4
ıte	2⅔
ve	2
ia	2
ture, 4 ranks	
ibel, 3 ranks	
npette	8
lon	4

CHOIR ORGAN.

cipal	8
ıtatön, 16 feet tone	
ıet, 8 feet tone	
ve	4
5. Quintatön, 8 feet tone	
6. Rohrflöte	4
7. Nassat	2⅔
8. Octave	2
9. Quinte	1⅓
10. Sifflote	1
11. Mixture, 3 ranks	
12. Vox Humana, 8 feet tone	
13. Unda Maris, 8 feet tone	

PEDAL ORGAN.

1. Principal Bass	16
2. Sub Bass, 16 feet tone	
3. Violone	8
4. Pausan	16
5. Trompette	8

ACCESSORY STOPS, ETC.

1. Schwebung
2. Coppel
3. Bass Ventil
4. Klingel

Church of St. Sophia, Dresden.

e organ in the Church of St. Sophia, Dresden, was by Silbermann, about the year 1750, and is a very ıstrument. It contains the following stops:

GREAT ORGAN.

CC to D in alt.

	FEET.
rdon, 16 feet tone	
ıtaton, 16 feet tone	
cipal	8
nflote	8
rflote, 8 feet tone	
ve	4
shorn	4
t	2⅔
ve	2
	1⅓
ture, 5 ranks	
bel, 3 ranks	
et, 5 ranks	
14. Trompet, Discant / Ditto, Bass	8
15. Clarin	4

CHOIR ORGAN.

CC to D in alt.

1. Quintaton, 16 feet tone	
2. Principal	8
3. Gedact, 8 feet tone	
4. Quintaton, 8 feet tone	
5. Unda Maris, 8 feet tone	
6. Octave	4
7. Rohrflote, 4 feet tone	
8. Nasat	
9. Octave	

	FEET.
10. Super Octave	1
11. Mixture, 3 ranks	
12. Vox Humana, 8 feet tone	

PEDAL ORGAN.
CCC to Tenor C.

1. Principal	16
2. Bourdon, 16 feet tone	
3. Sub Bass	16
4. Cornet, 3 ranks	
5. Posaune	
6. Trumpet	

ACCESSORY STOP
1. Choir to Great
2. Great to Pedal
3. Tremulant to Choi

Church of the Holy Cross, Dresden.

The organ in the Church of the Holy Cross was built by Jagurmann, of Dresden, and is al very fine instrument; it is the largest in the contains the following stops:

GREAT ORGAN.
CC to D in alt.

	FEET.
1. Principal	16
2. Bourdon, 16 feet tone	
3. Grosse Octave	8
4. Gamba	8
5. Gemshorn	8
6. Rohrflote, 8 feet tone	
7. Octave	4
8. Gemshorn	4
9. Quinte	2⅔
10. Octave	2
11. Terz	1⅗
12. Mixture, 6 ranks	
13. Cymbel, 5 ranks	
14. Cornet, 5 ranks	
15. Fagotto	16
16. Trompete	8
4. Rohrflote, 4 feet t	
5. Nasat	
6. Octave	
7. Quinte	
8. Sifflote	
9. Mixture, 4 ranks	
10. Krumhorn, 8 feet	

ECHO ORGA
CC to D in
1. Quintaton, 16 feet
2. Principal
3. Schwiegel
4. Gedact, 8 feet tone
5. Quintaton, 8 feet
6. Octave
7. Rohrflote, 4 feet t
8. Quinte
9. Octave
10. Flageolet
11. Mixture, 5 ranks
12. Cymbel, 4 ranks
13. Cornet, 5 ranks
14. Vox Humana, 8 f

CHOIR ORGAN.
CC to D in alt.

1. Lieblich Gedact, 8 feet tone	
2. Rohrflote, 8 feet tone	
3. Principal	4

* Chorley, in his *Music and Musicians in France and Ge* vol. iii, p. 168, thus speaks of Silbermann's organ at the So or Evangelical Church, on the occasion of his visit to Herr S celebrated organist: "Herr Schneider's instrument stand *al the* gallery, clad in a white case, with silvern pipes, a

PEDAL ORGAN.
CCC to Tenor D.

	FEET.
1. Gross principal Bass	32
2. Principal Bass	16
3. Violone Bass	16
4. Sub-Bass, 16 feet tone	
5. Gedact Quint Bass, 10⅔ feet tone	
6. Principal Bass	8
7. Quintaton Bass, 8 feet tone	
8. Violon Bass	8
9. Koppel	8
10. Qainta Bass	5⅓
11. Octave Bass	4
12. Ditto	2
13. Mixture Bass, 6 ranks	
14. Posaune Bass	16
15. Trompete Bass	8
16. Clarion Bass	4

ACCESSORY STOPS.

1. Great to Pedal
2. Echo to Great
   Three Trunk Valves.
3. Tremulant Echo

St. Michael's Church, Vienna.

The organ in St. Michael's Church, Vienna, is a very old instrument. The following is a list of the stops:

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with a quantity of *rocco* gilt garlands. It has only two key-boards, each four octaves and a half, in visible register; 24 stops" (32?); "and a long pedal board, well worn. The voice proceeding from the first handful of keys put down, informed one of the neighbourhood of something surpassing after its kind. This is one of the great Silbermann's organs; and never heard I pipes of such a ripe and fascinating sweetness of tone from the lowest *elephant* pedal C to the *skylark* C *altissimo*; no hissing, no wheezing, no lumbering, no growling—none of that ferocity of sound which makes some of our famous English specimens surgical to the ear. Compared, indeed, with aught in *modern* organ building, the Silbermann instruments, in Dresden, are what the sumptuous ruby glass of the middle ages is to the ripest red piece of new Bohemian manufacture.

Only a few weeks before, I had been listening to our own noble organs * * * * * * in London, and in the town hall at Birmingham. A few weeks afterwards, I was admiring a magnificent musical structure in progress of erection in the Westminster Abbey of the French—the Cathedral at St. Denis; so that I was not without an opportunity of comparison to warrant me in simile making: and it is to be remembered that, as regards tone, the difference between player and player is little to be felt in the case of the instrument in question."

T.

GREAT ORGAN.
CC to C 3 in alt, short octaves.

	FEET.
1. Bourdon, 16 feet tone	
2. Principal	8
3. Piffaro	8
4. Quintaton, 8 feet tone	
5. Salcional	8
6. Octave	4
7. Fugara	4
8. Spitzflote	4
9. Nachthorn	4
10. Feldflote	4
11. Quint	2⅔
12. Tierce	1⅗
13. Mixture, 2 ranks	
14. Sesquialtera, 3 ranks	
15. Cymbel, 5 ditto	
16. Super Octave	1

CHOIR ORGAN.
CC to C 3 in alt, short octaves.

1 Coppel	8
2. Floto major	8
3. Principal	4
4 Octave	4
5. Coppel	4
6. Flaut minor	4
7. Quinte	2⅔
8. Octave	2
9. Super Octave	1
10. Mixture, two ranks	

ECHO ORGAN.
CC to C 3 in alt, short octaves.

1. Copel	8
2. Principal	4
3. Flöte	4
4. Octave	2

PEDAL ORGAN.
CCC short to A.

1. Principal ..... metal	16
2. Sub Bass ..... wood	16
3. Bourdon, 16 ft. tone, ditto	
4. Octave ..... metal	8
5. Ditto ..... wood	8
6. Coppel	8
7. Octave	4
8. Cornet, 3 ranks	
9. Pousaune	16
10. Trompete	8

ACCESSORY STOPS.

1. Choir to Great
2. Echo to ditto

Cathedral Church of St. Stephen, Vienna.

The organ in the Cathedral Church of St. Stephen, at Vienna, is a very old instrument. It contains the following stops:—

GREAT ORGAN.
CC to D in alt.

	FEET.
1. Major Flute	16
2. Quintaton, 16 feet tone	
3 Principal	8
4. Bourdon, 8 feet tone	
5. Gamba	8
6. Salcional	8
7. Octave	4
8. Spitzflote	4
9. Gamba	4
10. Fugara	4
11. Nachthorn	4
12. Quint	2⅔
13. Super Octave	2
14. Mixture, 8 ranks	
15. Sesquialtera, 4 ranks	
16. Cimbel, 8 ranks	
17. Scharf, 4 ranks	
18. Trompete	8

CHOIR ORGAN.
CC to D in alt.

1. Coppel	8
2. Rohrflote, 8 feet tone	
3. Flote Amabile	8
4. Quintaton, 8 feet tone	
5. Principal	4
6. Flote	4
7. Dulciana	4
8. Nasard	2⅔
9. Octave	2
10. Mixture, 5 ranks	

PEDAL ORGAN.
CCC to Tenor C.

1. Principal .....metal 16
2. Sub Bass .....wood 16
3. Bourdon, 16 feet tone
4. Principal .....metal 8
5. Octave .....wood 8
6. Violoncello..... 8
7. Quinte..... 5⅓
8. Octave..... 4
9. Mixture. 6 ranks
10. Cornet, 4 ranks
11. Bombarde 16
12. Posaune 16
13. Trompete 8

ACCESSORY STOPS.

1. Choir to Great
2. Great to Pedals
3. Tremulant
Three Wind-trunk Valves

Cathedral Church, Bremen.

The organ in the Cathedral Church at Bremen was built by Schulze. It presents the peculiarities of having a stop of 32 feet tone on the Choir as well as on the Great Manual, and of having a great stopped Quint of 21⅓ feet tone on the Pedal. The following is a specification of the instrument:—

GREAT ORGAN.

	FEET.
1. Bourdon to Tenor C Key } 32 ft. tone	
2. Principal.....	16
3. Bourdon, 16 feet tone	
4. Principal.....	8
5. Gedact, 8 feet tone	
6. Gamba.....	8
7. Hohlflote	8
8. Quinte.....	5⅓
9. Octave.....	4
10. Flote	4
11. Quint	2⅔
Octave	2
12. Mixture, 5 ranks	2
13. Cymbal, 3 ranks	2
14. Cornett, 3 ranks	4
15. Trompet	16
16. Trompet	8

CHOIR ORGAN.

1. Bourdon to Tenor C Key } 32 ft. tone	
2. Bourdon, 16 feet tone	
3. Salicional	8
4. Gedact, 8 feet tone	
5. Flote	8
6. Principal.....	8
7. Octave.....	4
8. Flote	4
9. Spitzflote	4
10. Quint	2⅔
Octave	2
11. Mixture, 5 ranks	2
12. Scharft, 3 ranks	2
13. Phizharmonica	8

SWELL ORGAN.

1. Leiblich Gedact, 16 feet tone	
2. Geigen Principal	8
3. Harmonica	8
4. Leiblcih Gedact, 8 feet tone	
5. Terpodion	8
6. Gedact Flote, 8 feet tone	
7. Flauto traverso.....	8
8. Geigen Principal	4
9. Flauto traverso.....	4
10. Zart Flote	4
11. Quint	2⅔
12. Octave.....	2
13. Mixture, 3 ranks	2
14. Æoline	8

PEDAL ORGAN.

1. Principal Bass	32
2. Gross Quinten Bass, 21⅓ feet tone	
3. Principal Bass	16
4. Major Bass.....	16
5. Violon.....	16

	FEET.
6. Sub Bass, 16 feet tone	
7. Quinten Bass, 10⅔ feet, tone	
8. Octave Bass	8
9. Gedact Bass, 8 feet tone	
10. Floten Bass	8
11. Violoncello	8
12. Octave	4
13. Posaune	32
14. Reim	16
15. Posaune	16
16. Trompet	8

Castor Church, Coblentz.

The following are the contents of the organ in the Church of Coblentz:

GREAT ORGAN.
CC to D in alt, 51 Notes.

	FEET.
1. Gross Gedact, 16 feet tone	
2. Principal	8
3. Viol di Gamba	8
4. Holpfeif	8
5. Quintadena, 8 feet tone	
6. Coppel	8
7. Octave	4
8. Salicional	4
9. Flaut	4
10. Quint	2⅔
11. Super Octave	2
12. Vox Angelica	2
13. Ters	1⅗
14. Mixture	1
15. Cornet	8
16. Trompet, Treble / Trompet, Bass	8

CHOIR ORGAN.
CC to D in alt, 51 Notes.

1. Bourdon, 8 feet tone	
2. Flaut Ravena	8
3. Principal	4
4. Flaut	4
5. Quint	2⅔
6. Octave	2
7. Mixture	
8. Krumhorn, 8 feet tone	
9. Vox Humana 8 feet tone	

ECHO ORGAN.
CC to D in alt, 51 Notes.

1. Bourdon, 8 feet tone	
2. Flaut	4
3. Salicional	4
4. Quint	2⅔
5. Octave	2
6. Trompet	8
7. Vox Humana, 8 feet tone	

PEDAL ORGAN.
CCC to Gamut G, 20 Notes.

1. Violon Bass	16
2. Sub Bass, 16 feet tone	
3. Principal Bass	8
4. Octave Bass	4
5. Posaune Bass	16
6. Clarion Bass	4
7. Cornet Bass	2

ACCESSORY STOPS.

1. Choir to Great
2. Great to Pedal
3. Tremulant Echo

Cologne Cathedral.

The organ in the Cathedral of Cologne is composed partly of an older instrument, said to have been about 800 years old at the time of its reconstruction. Maas, the late *organ builder* at Cologne, repaired and considerably added

to it, about twenty years since; more than half the pipes, the mechanism, &c. being made by him. The contents of this organ are as follows:

GREAT ORGAN.
CC to F in alt, 54 Notes.

	FEET.
1. Principal, tin, in front	16
2. Octave	8
3. Viol di Gamba	8
4. Hohlflote	8
5. Super Octave	4
6. Flautin	2
7. Ranschwerk, 5 ranks	2⅔
8. Cymbal, 4 ranks	
9. Sesquialtera, 2 ranks	2⅔
10. Posaune	16
11. Trompete	8

CHOIR ORGAN.
CC to F in alt, 54 Notes.

		FEET.
1.	Principal	8
2.	Rohrflote, 8 feet tone	
3.	Viola di Gamba, discant; Violoncello Bass	8
4.	Queerflote, discant	8
5.	Rohrflote, 4 feet tone	
6.	Super Octave	2
7.	Cornet, 4 ranks	
8.	Bourdon, discant; Contrafagot, Bass	16
9.	Clarion	8
10.	Krumhorn, 8 feet tone	
11.	Glockenspiel	

ECHO ORGAN.
CC to F in alt, 54 Notes.

		FEET.
1.	Hohlflote, discant; Hohlflote, Bass	8
2.	Queerflote, discant	8
3.	Pristant	4
4.	Hohlflote	4
5.	Super Octave	2
6.	Superflote	2
7.	Quintflote	1½
8.	Cymbal	
9.	Clarinett, discant; Clarinett, Bass	8 feet tone.

PEDAL ORGAN.
CCC to Tenor C. 25 notes.

	FEET.
1. Contra Violon	16
2. Sub Bass, 16 feet tone	
3. Violon	8
4. Octave Sub Bass, 8 ft. tone	
5. Super Octave	4
6. Posaune	16
7. Trompette	8
8. Clarion	4
9. Clarinett	2

The Jesuits' Church, Cologne.

The organ in the Jesuits' Church, Cologne, is a particularly fine instrument. It was originally built about the year 1750, and was repaired and enlarged in 1822. Its stops are as follows:

GREAT ORGAN.
CC to F in alt, 54 Notes.

	FEET.
1. Principal	16
2. Prestant	8
3. Gamba	8
4. Bourdon, 8 feet tone	
5. Octave	4
6. Quint	2⅔
7. Super Octave	2
8. Mixture, 4 ranks	
9. Cornet, 5 ranks	
10. Trompete discant; Trompete Bass	8
11. Clarion	

CHOIR ORGAN.

CC to F in alt, 54 Notes.

	FEET
1. Prestant	8
2. Gamba	8
3. Hollpfeif	8
4. Traversflote	8
5. Octave	4
6. Flote	4
7. Flautino	4
8. Super Octave	2
9. Carillon, 2 ranks	
10. Cornet, 5 ranks	
11. Clarinet, 8 feet tone	

ECHO ORGAN.

CC to F in alt, 54 Notes.

1. Gemshorn	8
2. Hollpfeife	8

	FEET.
3. Prestant	4
4. Flote	4
5. Hautbois	8
6. Vox Humana, 8 feet tone	

PEDAL ORGAN.

CCC to FF, 1½ Octaves, 18 Notes.

1. Sub Bass	16
2. Octave	8
3. Violone	8
4. Posaune	16
5 Trompete	8
6. Clarion	4

ACCESSORY STOPS, ETC.

1. Choir to Great
2. Echo to Choir
3. Great to Pedal
4. Tremulant to Choir

The Church of St. Maria de Capitol, Cologne.

The Church of St. Maria de Capitol, Cologne, contains an imposing-toned organ, built by Ludwig König, of Cologne, in 1767. In 1839, a Cornett and Flautino were added, and the organ raised to its present pitch by Engelbert Maas, of Cologne. The following is a list of the stops:

GREAT ORGAN.

CC to F in alt, 54 Notes.

	FEET.
1. Principal	16
2. Octave	8
3. Viola di Gamba	8
4. Hol'pfeif	8
5 Octave	4
6. Flaut	4
7. Quint	2⅔
8. Mixture, 4 ranks	2
9. Cymbal, 3 ranks	1
10. Cornett, 4 ranks	
11. Trompete	8
12. Clarion	4

CHOIR ORGAN.

CC to F in alt, 54 Notes.

1. Prestant	8
2. Viola di Gamba	8
3. *Hollpfeif*	8

	FEET.
4. Flaut travers discant	8
5. Octave	4
6. Flaut	4
7. Super Octave	2
8. Flautino	2
9. Quint Flaut	1⅓
10. Carillon, 2 ranks	4
11. Vox Humana, 8 feet tone	
12. { Clarinett discant / Hautbois Bass }	8

ECHO ORGAN.

CC to F in alt, 54 Notes.

1. Hollpfiefe	8
2. Gemshorn	4
3. Flaut, 4 feet tone	
4. Super Octave	2
5. Hautbois discant	8
6 { Vox Humana discant / Vox Humana Bass }	8 ft. tone.

PEDAL ORGAN.
CCC to Gamut A, 22 notes.

	FEET.
1. Bourdon	16
2. Viola di Gamba	8
3. Prestant	8
4. Gemshorn	8
5. Quinte	5⅓
6. Octave	4
7. Posaune	16
8. Trompete	8
9. Clarion	4
10. Clarino	2

ACCESSORY STOPS, ETC.

1 Great to Pedal
2 Tremulant Echo
3 Tremulant Choir

The Cathedral, Freiburg, in Saxony.

The Cathedral at Freiburg, in Saxony, contains one of Silbermann's largest and finest organs. It contains the following stops:

GREAT ORGAN.

	FEET.
1. Bourdon, wood to the bass, 16 feet tone	
2. Principal.....English tin	8
3. Viola di Gamba.....tin	8
4. Rohrflote, tin, 8 feet tone	
5. Octave.....tin	4
6. Quinte.....tin	2⅔
7. Super Octave.....tin	2
8. Tierce.....tin	1⅗
9. Furniture, 4 ranks, Eng. tin	
10. Cymbale, 3 ranks, Eng. tin	
11. Cornet, 5 ranks, Eng. tin	
12. Trompete, Eng. tin	8
13. Clairon, Eng. tin	4

CHOIR ORGAN.

1. Quintaton, 16 feet tone, Eng. tin	
2. Principal.....ditto	8
3. Bourdon, metal treble, wood bass, 8 feet tone	
4. Octave.....Eng. tin	4
5. Flute.....ditto	4
6. Nazard.....metal	2⅔
7. Super Octave.....Eng. tin	2
8. Tierce.....ditto	1⅗
9. Fourniture, 3 ranks, ditto	
10. Cymbale, 3 ranks, ditto	
11. Echo Cornet, 5 ranks, metal	
12. Cromorne, 8 ft. tone, Eng. tin	
13. Voix Humaine, 8 ft. tone Eng. tin	

ECHO ORGAN.

1. Bourdon, 8 feet tone, metal	
2. Principal.....Eng. tin	4
3. Rohrflote, 4 ft. tone, ditto	
4. Nazard.....metal	2⅔
5. Octave.....Eng. tin	2
6. Tierce.....metal	1⅗
7. Quinte.....Eng. tin	1⅓
8. Sifflet.....ditto	1
9. Fourniture, 3 ranks, ditto	

PEDAL ORGAN.

1. Untersatz, 32 ft. tone, wood	
2. Principal, Bass.....Eng. tin	16
3. Sous Bass, 16 ft. tone, wood	
4. Octave.....ditto	16
5. Octave Bass.....tin	8
6. Super Octave.....tin	4
7. Fourniture, 6 ranks, tin	
8. Bombarde.....tin	16
9. Trompet.....tin	8
10. Clairon.....tin	4

ACCESSORY STOPS, ETC.

Great to Pedal
Two Tremulants
Six Bellows
Wind-trunk Valves

Merseburg, in Saxony.

The Cathedral organ at Merseburg has 10 sound-boards, 6 large pairs of bellows, and the following stops:

GREAT ORGAN.

	FEET.
1. Principal	8
2. Rohrflote, 16 feet tone	
3. Quintadena, 16 feet tone	
4. Chalmey, 8 feet tone	
5. Quintadena, 8 feet tone	
6. Quint	5⅓
7. Octave	4
8. Flute, 4 feet tone	
9. Sesquialtera, 2 ranks	2⅔
10. Octave	2
11. Mixture, 6 ranks	
12. Cymbal, 3 ranks	
13. Bombarde	16
14. Trumpet	8

SECOND (OR CHOIR) MANUAL.

1. Principal	8
2. Bourdon, 16 feet tone	
3. Viol di Gamba	8
4. Rohrflote, 8 feet tone	
5. Flageolet	4
6. Nason, Stopped	2⅔
7. Octave	2
8. Rohrflote, 2 feet tone	
9. Tierce	1⅗
10. Mixture, 6 ranks	
11. Vox Humana, 8 feet tone	
12. Chalmey, 8 feet tone	
13. Stahlspiel	4

THIRD MANUAL.
(Echo Organ.)

1. Principal	4
2. Salcional	4
3. Bourdon, 8 feet tone	
4. Nason	2⅔

	FEET.
5. Octave	2
6. Tierce	1⅗
7. Octave	1
8. Mixture, 4 ranks	

CHOIR ORGAN.
(In front, facing the choir, at the back of the Organist.

1. Principal	4
2. Quintadena, 8 feet tone	
3. Gedact, 8 feet tone	
4. Rohrflote, 8 feet tone	
5. Principal	4
6. Flute	4
7. Rohrflote, 4 feet tone	
8. Flageolet	2
9. Quint	2⅔
10. Tierce	2

PEDAL ORGAN.

1. Principal	16
2. Ditto	8
3. Sub Bass, 16 feet tone	
4. Quint	5⅓
5. Octave	4
6. Flute	4
7. Mixture, 6 ranks	4
8. Trombone	32
9. Ditto	16
10. Cornet	4
11. Sub Bass, 32 feet tone	
12. Violone	16
13. Klein Sub Bass, 8 ft. tone	
14. Violoncello	8
15. Flageolet	2
16. Flute Octave	1
17. Trumpet	8

Town Church, Fulda, Germany.

The Town Church, Fulda, was built by G. F. Ratzmann and Sons, of Ohrdruff. It has 6 bellows, 12 feet long and 6 feet broad. All the tin pipes in front, as well as those inside the case, are finely polished. The following is a list *of its stops;*

GREAT ORGAN.
CC to F in alt. 54 Notes.
(Large scale and full intonation.)

	FEET.
1. Principal.....tin	16
The 16 feet octave in front.	
2. Bourdon, wood, 16 ft. tone	
3. Principal, tin, in front	8
4. Bourdon, wood, 8 feet tone	
5. Hohlflote.....wood	8
6. Quint, wood bass, tin treble	5⅓
7. Gamba Quint .....tin	5⅓
8. Octave .....tin	4
9. Hohlflote.....wood	4
10. Quint .....tin	2⅔
11. Octave, 2 ranks, 2 ft. & 1 ft.	
12 Mixture, 4 ranks, C, E, G, C	2
13. Cymbal, 3 ranks, G, C, G...	1½
14. Cornet, 3 ranks, the first and second ranks wood stopped, C, G, C, 8 ft tone	
15. Trompete, tin, free reeds ...	8

CHOIR ORGAN.
CC to F in alt. 54 Notes.
(Smaller scale and clear intonation.)

1. Principal, the bass and tenor octaves of wood, the treble of tin.....	16
2 Principal, tin, in front	8
3. Gemshorn, the bass and tenor octaves of wood, the treble of tin.....	8
4. Still Gedact, wood, 8 ft. tone	
5. Quintaton, tin, 8 feet tone	
6. Octave .....tin	4
7. Flöte.....wood	4
8. Klein Gedact, tin, 4 ft. tone	
9 Waldflote .....tin	4
10. Quint .....tin	2⅔
11. Octave, 2 ranks, tin, 2 ft. & 1 foot	
12. Mixture, 4 ranks, C, E, G, C, tin	2

ECHO ORGAN.
CC to F in alt. 54 Notes.
(Smallest scale and delicate intonation.)

	FEET.
1. Quintaton, the bass octave of wood, the remainder of tin, 16 feet tone	
2. Geigen Principal, tin, in front	8
3. Salicional	8
4. Gedact, wood, 8 feet tone	
5. Flote Traverse .....wood	8
6. Octave .....tin	4
7. Spitzflote.....tin	4
8. Flote Travers .....wood	4
9. Flageolet.....tin	2
10. Sifflote.....tin	1
11. Mixture, 3 ranks, C, G, C, tin	2
12. Clavioline	8

PEDAL ORGAN.
CCC to Tenor D, 27 Notes.
(Largest scale and fullest intonation.)

1. Untersatz, wood, 32 ft tone	
2. Principal Bass .....wood	16
3. Violon .....ditto	16
4. Sub Bass, wood, 16 ft. tone	
5. Traversen Bass .....wood	16
6. Octave Bass .....ditto	8
7. Violoncello .....ditto	8
8. Traversen Bass	8
9. Posaune, wooden tubes.....	16

ACCESSORY STOPS, ETC.

1. Choir to Great
2. Echo to ditto
3. Great to Pedal
4. Choir to ditto
5. Tremulant

Four double-action Composition Pedals, one to each Manual

Church of St. Maurice, Halle, Germany.

The organ in the Church of St. Maurice, at Halle, was ouilt by Schulze. The sound-boards are made to slope upwards from front to back, so that the stops stand in

terrace form. The following is a list of the stops contained in this organ:

GREAT ORGAN.

	FEET.
1. Bordun to G, 32 feet tone	
2. Principal	16
3. Bordun, 16 feet tone	
4. Octave	8
5. Gedact, 8 feet tone	
6. Gamba	8
7. Hohlflote	8
8. Quinte	5⅓
9. Octave	4
10. Flote	4
11. Quint and Octave	2⅔ & 2
12. Mixture, 5 ranks	2
13. Cornett, 3 ranks	
14. Trompette	8

CHOIR ORGAN.

1. Bordun, 16 feet tone	
2. Principal	8
3. Gedact, 8 feet tone	
4. Flote	8
5. Salicional	8
6. Octave	4
7. Hohlflote	4
8. Quinte	2⅔
9. Octave	2
10. Scharf, 5 ranks	1

ECHO ORGAN.

1. Leiblich Gedact, 16 ft. tone	
2. Geigen Principal	8
3. Leiblich Gedact, 8 feet tone	
4. Flauto Traverse	8
5. Harmonica	8
6. Schweizerflote	8
7. Geigen Principal	4
8. Gedact, 4 feet tone	

PEDAL ORGAN.

1. Principal Bass	16
2. Sub Bass, 16 feet tone	
3. Violone	16
4. Octave Bass	8
5. Gedact Bass, 8 feet tone	
6. Violoncello	8
7. Posaune	32
8. Posaune	16

St. Catherine's Church, Hamburg.

The fine organ in St. Catherine's Church, Hamburg, is said to be about 400 years old. It is not known by whom it was built. Like St. Michael's, this organ has a 32 feet front of tin. It contains the following stops:

GREAT ORGAN.

	FEET.
1. Principal	16
2. Quintadena, 16 feet tone	
3. Octave	8
4. Spitzflote	8
5. Gamba	8
6. Octave	4
7. Rauschpfeife, 2 ranks	2⅔ & 2
8. Octave	2
9. Mixture, 10 ranks	
10. Trompete	16
11. Ditto	8

CHOIR ORGAN.

	FEET.
1. Bourdon, 3 top octaves only, 16 feet tone	
2. Principal, 2 pipes to each key in the treble	8
3. Gedact, 8 feet tone	
4. Quintadena	8
5. Octave	4
6. Klein Hohlflote	4
7. Nasat	2⅔
8. Sesquialtera, 2 ranks	
9. Sifflote	1
10. Scharf, 3 ranks	
11. Dulcian	16
12. Trompete to tenor C	8
13. Hautbois d'Amour	8

ECHO ORGAN.

	FEET.
1. Principal	8
2. Rohrflote, 8 feet tone	
3. Gedact, 8 feet tone	
4. Octave	4
5. Flote	4
6. Waldflote	2
7. Scharf, 3 to 5 ranks	
8. Trompete	8
9. Ditto	4
10. Vox Humana, 8 feet tone	

SWELL ORGAN.

1. Principal	8
2. Octave	4
3. Quintadena, 4 feet tone	
4. Quinte	2⅔
5. Scharf, 7 ranks	
6. Trompete	8
7. Oboe	8

PEDAL ORGAN.

	FEET.
1. Principal, in front	32
2. Principal	16
3. Sub Bass, 16 feet tone	
4. Quinte	10⅔
5. Octave	8
6. Ditto	4
7. Ditto	2
8. Mixture, 3 ranks	
9. Posaune	32
10. Ditto	16
11. Dulcian	16
12. Trompete	8
13. Ditto	4

ACCESSORY STOPS, ETC.

1. Cymbelstern
2. Tremulant
3. Glockenspiel
4. Calcantglock

5 to 10. Six wind-trunk valves.

Church of St. Jacobi, Hamburg.

The fine organ in the Church of St. Jacobi, at Hamburg, was built by the Abbé Schnittker, whose instruments are so justly celebrated for their stability, as well as their dignified and impressive tone, and was completed towards the close of the seventeenth century. The following is the disposition of the organ:

GREAT ORGAN.

	FEET.
1. Principal	16
2. Quintadena, 16 feet tone	
3. Octave	8
4. Viola di Gamba	8
5. Spitzflote	8
6. Octave	4
7. Rohrflote, 4 feet tone	
8. Quinte	2⅔
9. Super Octave	2
10. Mixture, 6 and 8 ranks	
11. Ranschpfeife	
12. Trompete	16

CHOIR ORGAN.

	FEET.
1. Principal	8
2. Bauerpfeife	8
3. Quintadena, 8 feet tone	
4. Gedact, 8 feet tone	
5. Octave	4
6. Blorkflote	4
7. Nasat	2⅔
8. Octave	2
9. Siffiote	1
10. Sesquialtera, 2 ranks	2⅔
11. Scharf, 6 and 8 ranks	
12. Dulcian	
13. Trompete	

SWELL ORGAN.	FEET.
1. Principal	8
2. Hohlflote	8
3. Bahrfloete, 8 feet tone	
4. Octave	4
5. Spitzflote	4
6. Nasat	2⅔
7. Octave	2
8. Gemshorn	2
9. Cymbel, 3 ranks	
10. Scharf, 6 ranks	
11. Trumpet	8
12. Oboe to middle C	8
13. Vox Humana, 8 feet tone	

SWELL ORGAN.	FEET.
1. Principal	8
2. Octave	4
3. Hohlflote	4
4. Wildflote	2
5. Sesquialtera, 2 ranks	2⅔
6. Scharf, 6 and 8 ranks	
7. Dulcian	8
8. Trichter Regal	8

PEDAL ORGAN.	FEET.
1. Principal, in front	32
2. Octave	16
3. Sub Bass, 16 feet tone	
4. Octave	8
5. Ditto	4
6. Rauchthorn	2
7. Mixture, 6 and 8 ranks	
8. Rauschpfeife, 2 ranks	
9. Posaune	32
10. Ditto	16
11. Dulcian	16
12. Trompete	8
13. Ditto	4
14. Cornet	2
The four manuals can be coupled together.	

ACCESSORY STOPS, ETC.
1 to 5. Five Wind-trunk Valves.
6. Cymbelstern
7. Glockenspiel
8. Tremuent

St. Michael's Church, Hamburgh.

The fine organ in St. Michael's Church, Hamburgh, was built by Hildebrand, Silbermann's principal workman, and opened for service in 1762. T. Mattheson, the celebrated composer and theorist, left by will £4000 towards paying for this organ; which sum, however, did not equal the amount expended in its fabrication. The case presents a handsome front, 60 feet in height, and 60 feet in width. The 32 feet pipe stands in the centre by itself, in an immense pilaster, the remainder of the 32 feet stop in two great concave compartments, one on each side, and every pipe is supported below by a base, and finished off above with a Corinthian capital, gilded, the pipes themselves forming the shafts, being of their natural bright silver colour. The CCCC pipe in the middle of the front, which is made of *pure tin*, is 35 feet 6 inches in length, 20 inches in diameter,

weighs upwards of 960 pounds, and the body was cast in one sheet. The diameter of the 32 feet posaune is 16 inches at the bell, and of the 16 feet posaune, 10 inches. A light sieve of metal wire, with wide meshes, placed over the bell of each of the large reed pipes, keeps out the birds—a most necessary precaution. The tops of a great portion of the large metal pipes also have an addition that is by no means common. This consists of a sliding cylinder, introduced to aid the process of tuning, which is drawn up or pressed down according as the pitch of the pipe may require flattening or sharpening. The top of the pipe is further covered with leather outside, to prevent the cylinder slipping. None of the pipes are pressed out of shape, none present bent or ragged tops, but all preserve their symmetry of outline. The organ contains the following stops:

GREAT ORGAN.

	FEET.
1. Principal ..... tin	16
2. Quintadena, wood and metal, 16 feet tone	
3. Octave ..... tin	8
4. Gedact, wood and metal, 8 feet tone	
5. Gamba ..... tin	8
6. Gemshorn ..... metal	8
7. Quint ..... ditto	5⅓
8. Octave ..... ditto	4
9. Gemshorn ..... metal	4
10. Nasat ..... ditto	2⅔
11. Octave ..... tin	2
12. Rauschpfeif, 2 ranks ditto	2⅔
13. Mixture, 8 ranks ..... ditto	2
14. Scharf, 5 ranks ..... ditto	1½
15. Cornet, 5 ranks ..... ditto	8
16. Trompete ..... ditto	16
17. Ditto ..... ditto	8
18. Oboe from tenor F	8

CHOIR ORGAN.

1. Rohrflote, wood and metal 16 feet tone	
2. Principal ..... tin	8
3. Ditto to fiddle G	8
4. Rohrflote, metal, 8 ft. tone	
5. Flaute traverso ..... wood	8
6. Klein Gedact, wood, 8 feet tone	
7. Octave ..... tin	4
8. Rohrflote, metal, 4 ft. tone	
9. Nasat ..... tin	2⅔
10. Octave ..... ditto	2
11. Flach-flote ..... metal	2
12. Quint ..... tin	1⅓
13. Rauschpfeif, 2 ranks, ditto	2⅔
14. Cymbal, 5 ranks ..... ditto	
15. Chalameau ..... ditto	8
16. Trompete ..... ditto	4

Upper-work and swell on the same manual.

UPPER WORK.

1. Bourdon, wood and metal, 16 feet tone	
2. Principal ..... tin	8
3. Quintadena, wood and metal, 8 feet tone	
4. Spitzflote ..... metal	8
5. Under Maris to fiddle G	8
6. Octave ..... tin	4
7. Spitzflote ..... metal	

	FEET.
8. Quint	tin 2⅔
9. Octave	ditto 2
10. Rauschpfeif, 2 ranks,	ditto 2⅔
11. Cymbal, 3 ranks	ditto 1½
12. Echo Cornet to fiddle G, 5 ranks	8
13. Trompete	tin 8
14. Vox Humana	8
15. Cremona to tenor F	8
16. Glockenspiel to tenor F	8

SWELL.

1. Octave	8
2. Ditto	4
3. Cornet, 5 ranks in the Treble, 2 ranks in the Bass	8
4. Trompete	8

PEDAL ORGAN.

1. Principal	tin 32
2. Sub-Bass, wood, 32 ft. tone	
3. Principal	tin 16
4. Sub-Bass, open	wood 16
5. Ditto, stopped, wood, 16 ft. tone	16
6. Violone	wood 16
7. Rohrquint, metal, 10⅔ ft. tone	
8. Octave	tin 8
9. Gedact, tin, 8 feet tone	4
10. Octave	tin 4
11. Mixture, tin, 10 ranks	
12. Posaune	tin 32
13. Ditto	ditto 16
14. Fagotto	16
15. Trompete	tin 8
16. Clarino	ditto 4

ACCESSORY STOPS.

1. Tremulant to Great Manual
2. Cymbelstar
3. Wind to Great Organ
4. Ditto to Choir ditto
5. Ditto to Upper work
6. Ditto to Pedal Organ

The University Church, Leipzig.

The organ in the University Church at Leipzig is a very fine instrument; but the touch is so heavy that playing on it is a great labour. It contains the following stops:

GREAT ORGAN.
CC to E in alt.

	FEET.
1. Principal	16
2. Bourdon, 16 feet tone	8
3. Octave	8
4. Gemshorn	8
5. Gamba	
6. Rohrflote, 8 feet tone	8
7. Quinta	5⅓
8. Octave	4
9. Gemshorn	4
10. Quinte	2⅔
11. Octave	2
12. Tertia	1⅗
13. Mixture, 6 ranks	
14. Cymbal, 3 ditto	
15. Cornet, 5 ditto	
16. Fagotto, 16 feet tone	8
17. Trompete	8
18. Clairon	4

CHOIR ORGAN.
CC to E in alt.

1. Salicional	8
2. Flote	8
3. Rohrflote, 8 feet tone	
4. Principal	4
5. Flote	4
6. Gedact, 4 feet tone	
7. Nassat	2⅔
8. Octave	2
9. Quinta	1⅗
10. Flageolet	1
11. Mixture, 4 ranks	
12. Oboe, 8 feet tone	

ECHO ORGAN.
CC to E in alt.

1. Quintaton, 16 feet tone	8
2. Principal	8
3. Spitzflote	8
4. Fugara	
5. Quintaton, 8 feet tone	

	FEET.
6. Gedact, 8 feet tone	
7. Octave	4
8. Rohrflute, 4 feet tone	
9. Quinta	2⅔
10. Octave	2
11. Mixture, 5 ranks	
12. Cornet, 3 ditto	
13. Physharmonica, 8 feet tone	
14. Vox Humana, 8 ft. tone	

PEDAL ORGAN.
CCC to Tenor E.

1. Principal	32
2. Octave	16
3. Violone	16
4. Sub-Bass, 16 feet tone	
5. Quinta	10⅔
6. Octave	8
7. Violoncello	8
8. Quinto	5⅓
9. Octave	4
10. Mixture, 6 ranks	
11. Posanne	32
12. Ditto	16
13. Trompete	8
14. Clarion	4

ACCESSORY STOPS, ETC.

1. Echo to Great
2. Choir to ditto
3. Great to Pedal
4. Tremulant Echo

Three Wind-trunk Valves.

St. Marien Kirche, Lubeck.

St. Mary's Church, at Lubeck, contains three organs; the largest stands at the west end of the church, the second organ stands on the left-hand side, and the third organ in the choir.

The original organ was built in the years 1516—18, by Barthold Hering (surnamed Master Barthold); the noble front of which is still preserved for the present organ,* which was rebuilt by J. F. Schulze and Edmund Schulze (father and son), in the years 1851 and 1854.

The case is from 70 to 80 feet in height, 40 in width, and 7 feet deep. The 32 feet metal pipes are in front, the largest of which is 19 inches in diameter. All the front pipes are of pure tin, burnished, and are slightly but exquisitely diapered about the mouth. The organ is laid out in four stories, the swell occupying the upper one. The frame-work and sound-boards are almost entirely of oak; the front

* The choir organ in front was a subsequent addition, and built in 1561, which date is ingeniously recorded among the ornamental carving at the top.

boards of the latter being of polished mahogany, handsomely inlaid with ebony.

Among the speaking stops there are three of 32 feet, sixteen of 16 feet, twenty-nine of 8 feet, fourteen of 4 feet, two of 2 feet, and 7 others. Among the mixtures there are thirteen reeds (seven open and six closed), besides one of 32 feet, four of 16 feet, six of 8 feet, and two of 4 feet.

There are 12 bellows, 10 feet by 5, of which 4 belong to the first pedal and the pneumatic lever, and the other eight bellows to the manuals and second pedal.

The beams that support the organ are built into the wall behind; and the organ hangs pendant fashion, with most elegant effect. The following is a detailed list of its stops:

GREAT ORGAN.
CC to F in alt. 56 notes.

	FEET.
1. Bordun to Tenor C, 32 feet tone, untersatz	
2. Principal	16
3. Viola Major	16
4. Bordun, 16 feet tone	
5. Principal	8
6. Gemshorn	8
7. Hohlflote	8
8. Viola di Gamba	8
9. Gedackt, 8 feet tone	
10. Quint	5⅓
11. Octave	4
12. Spitzflote	4
13. Violino	4
14. Nasoat	2⅔
15. Rausch-quinte, 2 ranks and 2 feet tone	2⅔
16. Mixtur, 5 ranks	2
17. Cymbel, 3 ranks	〃
18. Cornet, 4 ranks	
19. Tuba	16
20. Trompete	8
21. Clarino	4

CHOIR ORGAN.
(*Zweites Clavier*).
CC to F in alt. 54 Notes.

	FEET.
1. Principal	16
2. Bordun, 16 feet tone	
3. Principal	8
4. Salicional	8
5. Spitzflote	8
6. Portunalflote	8
7. Gedact, 8 feet tone	
8. Octave	4
9. Gemshorn	4
10. Rohrflöte, 4 feet tone	
11. Quinte	2⅔
12. Octave	2
13. Mixture, 5 ranks	2
14. Scharf, 3 ditto	2
15. Physharmonika	16
16. Trompete	8

ECHO ORGAN.
(*Drittes Clavier*).
CC to F in alt, 54 Notes.

	FEET.
1. Lieblich Gedact, 16 ft. tone	
2. Geigen Principal	8
3. Terpodion	8
4. Lieblich Gedact, 8 feet tone	
5. Flauto Traverso	8
6. Jubalflöte, 8 feet tone	
7. Geigen Principal	4
8. Zartflöte	4
9. Flauto Traverso	4
10. Spitz Quinte	2⅔
11. Waldflöte	2

	FEET.
12. Progressio Harmonica, and 6 ranks	3
13. Flageolet	
14. Æoline	8
15. Oboe	8

SWELL ORGAN.
(*Viertes Clavier.*)
CC to F in alt, 54 notes.

1. Tibia major, 16 feet tone	
2. Principal	8
3. Fugara	8
4. Flaute dolce	8
5. Flaut Amabile	8
6. Octave	4
7. Viola d'amour	4
8. Progressio Harmonica, 3 and 6 ranks	
9. Clarinetto, 8 feet tone	

GREAT PEDAL ORGAN.
(*Erstes Pedal*).
CC to D, 27 notes.

1. Gross Principal	32
2. Principal Bass	16
3. Bass Majore	16
4. Violon	16
5. Major Quinte	10⅔
6. Basso Minore	8
7. Violoncello	8
8. Terz	6⅖
9. Quinte	5⅓
10. Octave	4

	FEET.
11. Cornet, 5 ranks	
12. Contra Posaune	32
13. Posaune	16
14. Trompete	8
15. Schalmei	4

CHOIR PEDAL ORGAN.
(*Zweites Pedal.*)

1. Sub Bass, 16 feet tone	
2. Doppel Floten Bass, 16 feet tone	
3. Violoncello	8
4. Gedacht Bass	8
5. Fagotto	16

ACCESSORY STOPS, ETC.

1. Wind to Great Organ
2. Ditto to ditto & Swell ditto
3. Ditto to Choir
4. Ditto to Echo
5. Ditto to First Pedal
6. Coupler Choir to Great
7. Ditto Echo to ditto
8. Ditto Swell to ditto
9. Pedal Coupler
10. Evacuant
11. Calcanten Glocke
12. Cimbelstern
13. Tremulant
14. Swell Pedal
15. Expression ditto to Swell

The second organ in this church has a 16 feet speaking front, and the Choir Organ is in front. It contains the following stops:

GREAT ORGAN.

	FEET.
1. Quintaton, 16 feet tone	
2. Principal	8
3. Spitzflote	8
4. Octave	4
5. Flote	4
6. Rausch-Quinte, 2 ranks, 2⅔ and 2 feet	
7. Mixture, 4 and 5 ranks	
8. Trompete	8

CHOIR ORGAN.

1. Principal	8
2. Quintadena, 8 feet tone	
3. Rohrflote, 8 feet tone	
4. Octave	4
5. Rohrflote, 4 feet tone	
6. Flote	2
7. Sesquialtera, 2 ranks, 2⅔ and 1⅗ feet	
8. Mixture, 4 ranks	
9. Scharf, 5 ditto	
10. Fagotto, 16 feet tone	
11. Regal	8

SWELL ORGAN.

	FEET.
1. Gedact, 8 feet tone	
2. Ditto 4 feet tone	
3. Cornett, 3 ranks	
4. Trompete	8

PEDAL ORGAN.

1. Principal in front	16
2. Gross Quint, stopped, 10⅔ feet tone	
3. Octave	8
4. Gedact, 8 feet tone	
5. Octave	4
6. Ditto	2
7. Mixture, 3 ranks	5⅓
8. Posaune	16
9 Trompete	8
10. Schalmay, 4 feet tone	

There are six bellows

The third organ, which is placed in the choir, has one Manual, and a Pedal of seven notes. This instrument is used only to accompany the church service.

Lubeck.

The organ in the second church at Lubeck contains the following stops:

GREAT ORGAN.

	FEET.
1. Principal	16
2. Quintaton, 16 feet tone	
3. Octave	8
4. Viola di Gamba	8
5. Octave	4
6. Flote	4
7. Ranshpfeife, 2 ranks, 2⅔ ft.	
8. Mixture, 8 ranks	
9. Scharf, 6 ranks.	

CHOIR ORGAN.

1. Principal	8
2. Gedact, 8 feet tone	
3. Quintaton, 8 feet tone	
4. Barpfeife	8
5. Octave	4
6. Flote	4
7. Sifflote	2
8. Mixture, 4 ranks	
9. Schalmey, 8 feet tone	
10. Regal	8

ECHO ORGAN.

1. Principal	8
2. Hohlflöte	8
3. Zink	8
4. Principal	4
5. Flote	4
6. Nassat	2⅔
7. Waldflote	2
8. Cymbel, 3 ranks	
9. Trompet	8
10. Vox Humana, 8 feet tone	

SWELL ORGAN.

1. Gedact, 8 feet tone	
2. Octave	4
3. Quintaton, 4 feet tone	
4. Waldflote	2
5. Scharf, 4 ranks	
6. Dulcian	16
7. Regal	8

PEDAL ORGAN.

1. Principal	16
2. Sub Bass, 16 feet tone	
3. Octave	8
4. Violoncello	8
5. Gedact, 8 feet tone	
6. Octave	4
7. Mixture, 4 ranks	
8. Posaune	16
9. Trompet	8

St. Wenzel, Naumberg.

The oldest parts of the organ in the Church of St. Wenzel, in Naumberg, date as far back as 1618, to which

additions were made in 1784 (by Hildebrand of Leipzig), in 1787, and 1810. The present contents of the organ are as follow:

GREAT ORGAN.	FEET.
1. Principal	16
2. Quintatön, 16 feet tone	
3. Octave	8
4. Spitzflöte	8
5. Gedackt, 8 feet tone	
6. Prestant	4
7. Spitzflöte	4
8. Gedact, 4 feet tone	
9. Quinte	3
10. Octave	2
11. Weitpfeife	2
12. Mixture, 5 ranks	
13. Cornett, 5 ranks	
14. Bombard, 16 feet	
15. Trompete	8

CHOIR ORGAN.	
1. Tibia major, 16 feet tone	
2. Principal	8
3. Gemshorn	8
4. Viola di Gamba	8
5. Fugara	8
6. Rohrflöte, 8 feet tone	
7. Quintaten, 8 feet tone	
8. Prestant	4
9. Rohrflöte, 4 feet tone	
10. Octave	2
11. Mixture, 5 ranks	3

ECHO ORGAN.	FEET.
1. Bourdon, 16 feet tone	
2. Principal	8
3. Principal undamar	8
4. Hollflöte	8
5. Flauto Traverso	8
6. Clav-Æoline	8
7. Prestant	4
8. Gemshorn	4
9. Gedact, 4 feet tone	
10. Quinte	3
11. Octave	2
12. Waldflöte	2
13. Sifflöte	1
14. Mixture, 5 ranks	

PEDAL ORGAN.	
1. Principal	16
2. Violon	16
3. Sub-Bass, 16 feet tone	
4. Octav Bass	8
5. Violon	8
6. Quinte	6
7. Octave	4
8. Ditto	2
9. Mixture, 5 ranks	3½
10. Posaune	32
11. Ditto	16
12. Trompete	8

Church of St. Dominico, Prague.

The organ in the Church of St. Dominico, at Prague, contains the following stops:

GREAT MANUAL. (*Hauptwerk*)	FEET.
1. Principal	16
2. Octave	8
3. Octave	4
4. Super-Octave	2
5. Quinte	3
6. Kützialflöte	1
7. Sexte	2
8. Quinte	1⅓
9. Mixture, 10 ranks	
10. Cymbel, 4 ranks	
11. Grossegedackt	16
12. Gedackt	8
13. Offenflöte	4
14. Spitzflöte	

UPPER POSITIV.
(*Oberpositiv*).

	FEET.
1. Principal	8
2. Quintatön	16
3. Gemshorn	8
4. Hohlflöte	8
5. Octave	4
6 Super-Octave	2
7. Rauschpfeife, 3 ranks	
8. Koppel	1⅓
9. Mixture, 6 ranks	
10. Nachthorn	4
11. Surdun	16
12. Krummhorn	8

BREAST WORK.
(*Brustwerk.*)

1. Gedeckt	8
2. Gedeckt	4
3. Octave	2
4. Quint	1⅓
5. Sedecima	1
6. Cymbel, Scharf, 3 ranks	
7. Quintaton	4
8. Regal	16
9. Jungfernregal	8

BACK POSITIV.
(*Rückpositiv.*)

1. Principal	12
2. Principal	8
3. Octave	4
4. Super Octave	2
5. Sifflöte	1
6. Quinte	3
7. Sexte	2
8. Mixture, 5 ranks	
9. Salcional	16
10. Quintatön	8
11. Rohrflöte	4
12. Blockflöte	4
13. Querflöte	4
14. Gemshorn	2
15. Waldflöte	2
16. Dulcian wood	16
17. Trompete	8
18. Cornett, 4 ranks	

PEDAL.

1. Principal, throughout	32
2. Principal	16
3. Octave	16
4. Octave	8
5. Salcional	16
6. Super Octave	4
7. Koppel, 3 ranks Quinte, ditto Super Octave, 2 ranks Tertian, ditto	
8. Bauerflöte	1
9. Spitzflöte	2
10. Nachthorn	4
11. Mixture, 8 ranks	
12. Gross Quinte	5⅓
13. Posaune	32
14. Posaune	16
15. Trompete	8
16. Schalmei	4
17. Koppel	2
18. Dulcian	16

There are 12 bellows, 5 for the Pedal and 7 for the Manuals, and Couplers to all four rows of keys.

Stiftskirche, at Stutgard.

The organ in the Stiftskirche, at Stutgard, was built in 1737, by Martin, of Hayengen, partner of the celebrated organ-builder, Gabler, for the Benedictine Abbey of Zwiefalten. It has been repaired and enlarged by Walker, of Ludwigsburg, and is a particularly fine instrument. The following is a list of the stops:

GREAT ORGAN.

CC to D in alt.

		FEET.
1.	Bourdon, 32 feet tone	
2.	Principal	16
3.	Bourdon, 16 feet tone	
4.	Octav	8
5.	Gamba	8
6.	Viola	8
7.	Piffara, 2 ranks, 8 and 4 ft.	
8.	Quint	5⅓
9.	Octav	4
10.	Dolce	4
11.	Fugara	4
12.	Octav	2
13.	Mixtur, 4 ranks	
14.	Cornet, 5 ditto	
15.	Tuba	16
16.	Trompete	8

SECOND MANUAL.

CC to D in alt.

1.	Bourdon, 16 feet tone	
2.	Principal	8
3.	Gedackt, 8 feet tone	
4.	Viola	8
5.	Salicional	8
6.	Piffara	8
7.	Octav	4
8.	Flote	4
9.	Rohrflote, 4 feet tone	
10.	Nazard	2⅔
11.	Octav	2
12.	Mixtur, 2 ranks	
13.	Clarinet, 8 feet tone	

CHOIR OR THIRD ORGAN.

CC to D in alt.

1.	Salicional	16
2.	Principal	8
3.	Gedackt, 8 feet tone	
4.	Viola	8
5.	Harmonica	8
6.	Flote	8
7.	Octav	4
8.	Travers Flote	4
9.	Flageolet	2
10.	Mixtur, 2 ranks	
11.	Physharmonica	8

ECHO ORGAN.

CC to D in alt.

		FEET.
1.	Principal	8
2.	Gedackt, 8 feet tone	
3.	Viola	8
4.	Dolce	8
5.	Octav	4
6.	Flote	4
7.	Salicional	4
8.	Super Octav	2

PEDAL ORGAN.

CCC to Tenor D.

First Pedal.

1.	Sub Bass	wood	32
2.	Principal	metal	16
3.	Octav	wood	16
4.	Violone, 2 ranks,	16 &	8
5.	Quint	10⅔	
6.	Octave		8
7.	Quintaton, 8 feet tone		
8.	Quint	5⅓	
9.	Octav	4	
10.	Posaune	32	
11.	Posaune	16	
12.	Trompete	8	
13.	Clarion	4	
14.	Clarion	2	

Second Pedal.

15.	Bourdon, 16 feet tone	
16.	Violoncello	8
17.	Bourdon, 8 feet tone	
18.	Flote	4
19.	Flautino	2
20.	Serpent	16
21.	Basset Horn	8

ACCESSORY STOPS.

1. First P-dal to 2nd Pedal
2. First and 2nd Manual
3. First Manual to 1st Pedal
4. Second ditto to 2nd ditto
5. Second and 3rd Manual
6. Third and 4th ditto

Walterhausen, Germany.

The fine organ at Walterhausen, in the Dukedom of Gotha, contains the following stops:

GREAT ORGAN.

	FEET.
1. Bordun, 16 feet tone	
2. Quintaton, 16 ditto	
3. Praestant, English tin in front	8
4. Bordun, 8 feet tone	
5. Gamba	8
6. Gemshorn	8
7. Quintaton, 8 feet tone	
8. Unta Maris, ditto	
9. Octave	4
10. Rohrflote, 4 feet tone	
11. Salcional	4
12. Quinta	2⅔
13 Super Octave	2
14. Sequialter, 2 ranks	2⅔
15. Mixtur, 8 ranks	2
16. Fagotto	16
17. Trompete	8

CHOIR ORGAN.

1. Spitzflote Major	8
2. Nachthorn	8
3. Principal, English tin in front	4
4. Quintaton, 4 feet tone	
5. Gemshorn	4
6. Flauto Douce	4
7. Gemshorn Quinta	2⅔
8. Nasat	2⅔
9. Octave	2
10. Sesquialter	1⅓
11. Mixtur, 4 ranks	2⅔
12. Hautbois	8

ECHO ORGAN.

	FEET.
1. Geigen Principal, English tin in front	8
2. Doppel Flute	8
3. Hohlflote	8
4. Flauto traverso	8
5. Spitzflote	4
6. Still Gedact, 4 feet tone	
7. Hohlflote	2

PEDAL ORGAN.

1. Gross Untersatz, 32 feet tone	
2. Gross Principal, English tin in front	16
3. Quintaton, 16 feet tone	
4. Violon	16
5. Untersatz, 16 feet tone	
6. Octaven Principal	8
7. Bordun, 8 feet tone	
8. Viola di Gamba	8
9. Quinte	5⅓
10. Octave	4
11. Rohrflote, 4 feet tone	
12. Mixtur	2
13. Posaune	16
14. Trompete	8

ACCESSORY STOPS, ETC.

1. Choir to Great
2. Echo to ditto
3. Great to Pedal
4. Tremulant to Choir
5. Cymbelstern

Four Wind Trunk Valves.

The Benedictine Monastery, Weingarten, Upper Suabia.

Of the large organ in the Benedictine Monastery, at Weingarten, Upper Suabia, the Editor gives two descriptions: one extracted from Bedos' *L'Art du Facteur d'Orgues;* the other from Knecht's *Orgelschule.* And as there are some discrepances in the former (Bedos confessing that, although he received the description printed in his work from the

maker, Gabler himself, he did not understand German), the Editor conceives that, in the absence of positive information, a comparison of the two may help to solve the matter.*

This organ. which was finished on the 24th of June, 1750, was built by M. Gabler, manufacturer of organs at Ravensburg. It has four complete manuals, the keys of which are all moveable. The stops in the various manuals are as follow:

FOURTH MANUAL.		
FEET.		PIPES.
8.	Principal, que nous appellons Montre ....tin	49
2.	Cornet de 4 Octaves, ditto	425†
4.	Piffaro ....ditto	98‡
8.	Violonchel, autrement dit Gambe ....tin	49
4.	Flute Travers ....ditto	147§
8.	Quintaton ....ditto	49
4.	Hautbois ....ditto	49
1.	Voix Humaine....ditto	49
2.	Flageolet ....ditto	49
4.	Rohrflote, ou Flute à Cheminée ....tin	49
4.	Querflote, ou Flute Traversière ....wood	49
8.	Flute Douce ....ditto	49

THIRD MANUAL.		
8.	Montre ....tin	49
4.	Prestant....ditto	49
2.	Doublette ....ditto	49
1.	Cornet....ditto	196
2.	Fourniture....ditto	476
4.	Piffaro ....ditto	98
8.	Violonchel....ditto	49
8.	Quintaton ....ditto	49

FEET.		PIPES.
8.	Hautbois ....tin	49
4.	Hohlflote ....ditto	49
8.	Flute ....wood	49
16.	Bourdon....ditto	49

SECOND MANUAL.		
8.	Montre ....tin	49
4.	Prestant....ditto	49
3.	Fourniture ....ditto	1038
2.	Cymbale....ditto	98
2.	Nazard ....ditto	49
4.	Viola ....ditto	49
8.	Violonchel....ditto	49
8.	Salicional ....ditto	49
8.	Bourdon....ditto	49
8.	Flute Creux ....wood	49
8.	Unda Maris ....ditto	49
16.	Bourdon Bouché ...ditto	49

FIRST MANUAL.		
16.	Montre de 16 pieds, ditto	49
8.	Montre de 8 pieds...ditto	49
4.	Prestant....ditto	49
2.	Fourniture ....ditto	600
2.	Doublette ....ditto	49
1½.	Sexquialter ....ditto	483
1.	Cymbale ....ditto	609
8.	Piffaro ....ditto	190
8.	Trompette ....ditto	49

* Another description is given in Martini's *Ecole d' Orgue*, Paris, 1804, which, upon comparison with the other accounts, is certainly not correct. —EDITOR.

† There is no number which multiplied by 49 will make 425.

‡ Bedos gives 96 pipes to this stop; but the piffaro has two pipes to a note; hence twice 49 are 98, without which there will only be 1109 pipes.

§ This number 147 would be produced by three ranks of pipes; but the Editor never heard of more than one pipe to a note in a flute traversière.

REST.	PIPES.
2. Hohlflote, ou grosse taille .....ditto	49
8. Rohrflote, ou Flute à Cheminée .....ditto	49
2. Carillon de Cloches, bell-metal	
FIRST PEDAL ORGAN.	
PEDALS OF TWENTY KEYS.	
32. Contre Basse, ou Montre, tin	40
8. Fourniture.....ditto	100
16. Violon Basse, ou Grosse Gambe .....tin	40
16. Bombarde .....ditto	20
16. Bombarde Basse ... wood	20
16. Octave Basse, ou Flute, wood	20
32. Soub Basse, ou Flute, wood	20
4. Carillon en Cloches, bell-metal	
Timpano	
Cuculus, qui veut dire le Couceu	
Cymbale	
4. La Force, tin	
SECOND PEDAL ORGAN.	
(Couples with the First Pedal and with the First Manual.)	
8. Super Octave en Montre, tin	20

REST.	PIPES
4. Cornet .....tin	100
2. Sexquialter .....ditto	86
8. Violoncell, c'est une Gambe.....tin	20
8. Trompette .....ditto	20
4. Flute Creux, ou Grosse Flute .....tin	20
8. Flute Douce.....ditto	20
8. Fagot, ou Espèce de Cromorne .....tin	20
16. Quintaton .....ditto	20
Rossignol	
Tremblant	

NUMBER OF PIPES.	
Fourth Manual	1111
Third Manual.....	1111*
Second Manual	1666†
First Manual	2222
First Pedal Organ	260
Second Pedal Organ	296
Total Number of Pipes...	6666‡

NUMBER OF STOPS.	
Fourth Manual	13
Third Manual.....	13
Second Manual	12
First Manual	12
First Pedal Organ	12
Second Pedal Organ	11
Total Number of Stops...	66§

* The right number of pipes in the third manual is 1211, and not 1111 as above.

† The total number of pipes in the second manual here given by Bedos is evidently an error, as 1675 is the right number. The 1038 in the furniture are supposed to be thus made out—21 ranks and 2 pipes remaining distributed in the bass. The number 9 (which has evidently been omitted in the casting up), added to 1666, will make the right number of pipes, 1675.

‡ The number of pipes, according to Bedos, is

Fourth Manual	1111
Third Manual	1211
Second Manual.....	1675
First Manual	2222
First Pedal	260
Second Pedal	296
Total Number of Pipes...	6775

Too many by 109, to agree with the above.

§ *Right*, if 6 is deducted for the accessory stops.

"When I saw this organ in 1751," says Bedos, "I was not able to examine the stops inside the cases; Mr. Gabler, who alone had the keys, being then absent, and at a distance of about thirty leagues from the Abbey. The greater part of these stops are unknown to me. The builder has since sent me the list, but in German, which is a language I do not understand. I have begged Mr. Riepp, organ maker, a native of Germany, who speaks his language well, to give me the names of all these stops in French. He has replied that, having been wholly accustomed to construct his organs in the French manner (because he is established in France), he has never given his attention to, nor made any study of, the German stops; and that there are a number of them which he does not know. He has given me the names in French of those which he has been able to understand. I have followed the list, word for word, just as he sent it to me."

Bedos's Remarks on certain Stops in this Organ.

"Although I do not know a great many of these stops, I may be permitted to make some remarks on many things which appear singular to us, and very different from the method usually adopted in this matter in our kingdom (France). For instance, the cornet has a compass of 4 octaves, the largest pipe of which is only 2 feet long. This stop consists of 425 pipes, which would give 8 pipes to each key, and 33 over; which latter are probably distributed in the base, so that 9 pipes to each key may there be found. We cannot readily conceive how this cornet can have a compass of 4 octaves, with from 8 to 9 ranks of pipes, the first pipe being only 2 feet in length. It would seem that

there are necessarily *repeats* in it, as in our *plein-jeu*,* the difference being, to all appearance, that this cornet contains *tierces*,† which never occur in our plein-jeu.

"We find, in this organ, another cornet, different from the preceding, containing only 196 pipes, which give 4 pipes to each key, the largest being but 1 foot long. I think that this cornet must *repeat*, like the preceding.

"The fourniture, which sounds on the second manual, consists altogether of 1088 pipes, which would give 21 pipes to a key; and the remaining 9 pipes, which are apparently distributed in the base, so as to give 22 pipes to a key. The first pipe of this stop is only 3 feet long, and it is doubtless something less, in order to produce the fifth above the prestant. Since this fourniture is composed of so many ranks of pipes, and yet it only begins at 3 feet, it is probable that each rank is more than doubled. According to our method of composing the plein-jeu, by beginning at 4 feet, we can only put 16 pipes on each key, in making each rank different: we therein comprise the fourniture and the cymbale together. It must therefore be necessary to repeat each rank many times, in order to form a fourniture only, of 21 pipes.

"The cymbale which accompanies this fourniture has only 2 pipes on each key, and begins at 2 feet. The entire plein-jeu,‡ therefore, on the second manual, comprises 23 pipes on each key, and 24 in the base.

"Another fourniture which sounds on the first manual begins at 2 feet; it consists of 600 pipes, which give 12

* A French compound organ stop, comprising several. Also *full organ*.—EDITOR.

† Pipes giving the major third to the fundamental sound.—EDITOR.

‡ Here, in the sense of *full organ*.—EDITOR.

pipes to each key. I presume that this stop is arranged in the manner of the fourniture on the second manual. There is likewise another fourniture, which sounds on the third manual. It begins at 2 feet, and consists of 476 pipes; which give 9 pipes on a key, and 35 over, which are apparently distributed in the base.

"Behold, then, a plein-jeu with a total of 44 pipes on each key, which can be played together, without taking into account the fourniture in the pedal, which begins at 8 feet, and is composed of 5 pipes on each key; so that the entire plein-jeu has 49 pipes on every key.

"The foundation stops" (fondos) "to support this immense plein-jeu, including those in the pedal, consist of 2 stops of 32 feet, 5 of 16 feet, 16 of 8 feet, 9 of 4 feet, and 5 of 2 feet. All these foundation stops together give 37 pipes on each key, which, being added to the 49 of the fourniture and cymbale, produce, in all, a plein-jeu of 86 pipes on a key. I have only reckoned conjecturally, because I do not know most of the stops which I have included in the plein-jeu. I have perhaps omitted many which I ought to have added to it.

"All the reed stops consist of two bombardes, two trumpets, two hautboys (which apparently serve as clarions), one bassoon, and a vox humana. There is not a single stop of *étoffe*,* or of lead, in the whole organ; even the feet of the pipes are of tin.†

"There is a stop of *hand-bells* (Clochettes), or *clock-bells* (Timbres), which may be played with the other stops if we

* *Etoffe* is a mixture of common tin and lead in a certain proportion, used by the French organ-builders.—EDITOR.

† By tin, as used here, and in the German works, the purer metal is understood.—EDITOR.

choose. The hammers strike the bells when the keys are pressed down in the usual way, and they set themselves off again immediately, although the keys should continue to be held down. The base of this stop, that is, the 20 larger bells, are played on the Pedals."

Knecht's account of this organ is as follows:

"Description of the large and fine organ in the abbey of Weingarten, in Upper Suabia, which was built in 1750, at Ravensburg, by Gabler, the organ-builder. It possesses four manuals, which can be all coupled to each other, together with the pedal, and has 60 stops."

THE FIRST AND GREAT MANUAL,

Which contains 11 loud stops of the most importance.

		FEET.
1.	Gross [Great] Principal, in sight ..... tin	16
2.	Zweites [Second] Principal ditto ..... tin	8
3.	Rohrflöte	8
4.	Trompete	8
5.	Violoncello	8
6.	Octave	4
7.	Hohlflöte	4
8.	Super Octave	2
9.	Mixture, 20 ranks	3
10	Rauschpfeifen, eight ranks	3
11.	Cornet	4

SECOND MANUAL,

Which belongs to the Breastwork, contains 10 large and grave stops.

1.	Principal, in sight	tin	8
2.	Bourdon Bass	wood	16
3.	Salcional	tin	8
4.	Copel }	..... wood	8
5.	Unda Maris }		
6.	Violoncello douse	tin	8
7.	Octave, in sight	ditto	4
8	Rohrflöte	ditto	4
9.	Nazard	ditto	3
10.	Cimbel, 12 ranks	ditto	2

THE THIRD MANUAL.

Belongs to the Positive, and contains 12 soft stops.

			FEET.
1.	Principal, in sight	tin	8
2.	Copelflöte	wood	8
3.	Quintaden	tin	8
4.	Harfpfeifen	ditto	8
5.	Hautbois	ditto	4
6.	Biffera	ditto	4
7.	Flauto douse	wood	4
8.	Flauto Traverso	tin	4
9.	Vox Humana	ditto	8
10.	Flageolet	ditto	2
11.	Sesquialtera, 4 rank ...	ditto	1½
12.	Mixture, 12 ranks	ditto	2

THE FOURTH MANUAL,

In which are 11 agreeable and quiet echo stops.

1.	Principal	tin	8
2	Gross copel	wood	16
3.	Quintaden	tin	8
4.	Viola di Gamba	ditto	8
5.	Trompete	ditto	8
6.	Copel.	wood	8
7.	Octave, in sight	tin	4
8.	Flachflöte	ditto	2
9.	Nachthörnchen	ditto	2
10.	Mixture, 12 ranks	ditto	2
11.	Cornet, 4 ranks	ditto	4

PEDAL, with 16 stops.

	FEET.
1. Sub Principal, in sight...tin	32
2. Bombardon .....wood	32
3. Trombone.....ditto	32
4. Sub Bass .....ditto	16
5. Octave Bass, in sight ...tin	16
6. Trompete .....tin and wood	16
7. Violon	16
8. Hohlflöte	8
9 Fagott	8
10. Violoncello, 2 ranks	8
11. Super Octave to the 32 feet tone	8
12. Flachflöte.....	4
13. Zink	4
14. Spitsflöte	8
15. Cornet, 8 ranks	4
16. Mixture, 9 ranks	6

NUMBER OF PIPES.

First and Great Manual	2176
Second Manual	1176
Third Manual.....	1274
Fourth Manual	1225
Pedal.....	815
Total Number of Pipes...	6666

It is said that the builder, Gabler, gave such satisfaction, that the Monks, who were very rich, presented him with 6666 florins above his charge, being an additional florin for each pipe.

St. Mary's Church, Wismar, Germany.

The organ in St. Mary's Church, Wismar, was built by J. F. Schulze, and finished in 1840. It contains the following stops:

GREAT ORGAN.

	FEET.
1. Bourdon to G, 32 ft tone	
2. Principal	16
3. Quintaton, 16 feet tone	
4. Octave	8
5 Hohlflote	8
6. Terpodian	8
7. Gedact, 8 feet tone	
8. Quinte	5⅓
9. Octave	4
10. Gemshorn.....	4
11. Scharf, 5 ranks	
12. Cymbel, 3 ditto	
13. Cornet, 3 ditto	
14. Trompete	16
15. Trompete	8

CHOIR ORGAN.

1. Bourdon, 16 feet tone	
2. Principal	8
3. Gemshorn.....	8
4. Gamba	8
5. Flaute Traverso	8
6. Gedact, 8 feet tone	
7. Octave	4
8. Spitsflote	4
9. Flote	4
10. Quinte and Octave, 2 ranks,	2⅔ and 2
11. Mixtur, 4 ranks	1⅓
12. Physarmonica.....	16
13. Trompete	8

SWELL ORGAN.

1. Leiblich Gedact, 16 feet tone	
2. Geigen Principal.....	8
3. Salicional	8
4. Zartflote	8
5. Flauto Traverso	8
6. Leiblich Gedact, 8 feet tone	
7. Octave	
8. Fugara	4
9. Waldflote	2
10. Mixtur, 3 ranks	
11. Æoline	

PEDAL ORGAN.

	FEET.
1. Principal Bass	32
2. Principal	16
3. Quintaton, 16 feet tone	
4. Major Bass	16
5. Sub Bass, 16 feet tone	
6. Quinte, 10⅔ tone	
7. Octaven Bass	8
8. Violone	8
9. Minor Bass	
10. Gedact Bass, 8 feet	
11. Octave	
12. Mixtur, 5 ranks	
13. Posaune	
14. Ditto	
15. Bombarde	
16. Trompete	
17. Clarino	

Church of St. Nicholas, Zerbst.

The organ in the Church of St. Nicholas, Ze
built by Zuberbier and his partner Geibelin, in 1
contents are as follow :

GREAT ORGAN.

	FEET.
1. Principal, in front	16
2. Quintaton, 16 feet tone	
3. Octave	8
4. Gedact, 8 feet tone	
5. Viol di Gamba	8
6. Hohlflote	8
7. Quinta	5½
8 Super Octave	4
9. Gedact, 4 feet tone	
10. Gemshorn	4
11. Quinta	2⅔
12. Quinta Decima	2
13. Mixture, 6 ranks	
14. Cornett, 4 ditto	
15. Trompete	8
6. Octave	
7. Salicet	
8. Flaute douce	
9. Quint	
10. Super Octave	
11. Waldflote	
12. Tertia	
13. Mixture, 4 ranks	

CHOIR ORGAN.

1. Bourdon, 16 feet tone	
2. Principal	8
3. Gedact, 8 feet tone	
4. Quintaton, 8 feet tone	
5. Flauto Traverso	8

PEDAL ORGAN

1. Untersats, 32 feet t	
2. Principal, in front	
3. Sub Bass, 16 feet to	
4. Violone	
5. Octave	
6. Violoncello	
7. Super Octave	
8. Posaune	
9. Trompete	

ACCESSORY STOPS

1. Great to Pedal	
Three Wind Trunk	
Six Bellows 10 feet	

Garrison Church, Berlin.

The organ in the Garrison Church, at Berlin, was built in 1725, by Joachim Wagner. The distribution of the stops are as follows:

	FEET.
GREAT MANUAL.	
1. Principal	8
2. Octave	4
3. Octave	2
4. Bördun, 16 feet tone	
5 Viol di Gamba	8
6. Flauto Traverse	8
7. Rohrflöte, 8 feet tone	
8. Spitzflote	4
9. Scharf, 6 ranks	
10. Quinte	2⅔
11. Mixture, 4 ranks	
12. Cornet, 5 ranks	
13. Fagott	16
UNDER OR CHOIR MANUAL.	
1. Principal	8
2. Octave	4
3. Octave	2
4. Sifflöte	1
5. Salcional	8
6. Quintatön, 16 feet tone	
7. Gedackt	8
8. Fugara	4
9. Waldflöte	2
10. Quinte	2⅔
11. Scharf, 5 ranks	
12. Cymbel, 3 ranks	
13. Trompete, Treble	8
14. Trompete, Bass	8

	FEET.
UPPER OR ECHO MANUAL.	
1. Principal	4
2. Octave	2
3. Gedackt, 8 feet tone	
4. Quintatön, 8 ditto	
5 Rohrflöte, 4 ditto	
6. Flageolet	2
7. Nassat	2⅔
8 Cymbel, 4 ranks	
9. Terz	1⅗
10. Vox Humana, 8 feet tone	
11. Quinte	1⅓
PEDAL ORGAN.	
1. Principal (in front)	16
2. Octave	8
3. Violone	16
4. Gemshorn	8
5 Nachthorn	4
6 Quinte	5⅓
7. Quinte	2⅔
8. Mixture, 8 ranks	
9. Posaune	32
10. Posaune	16
11. Trompete	8
12. Clarion	4
ACCESSORY STOPS.	
1. Tremulant in Great Manual	
2. Sonnenzug (Sun)	
3. Schwebung	
4. Adlerzug (Eagle)	
5. Trompeter and Paukerengeln (Trumpeter and Drummer Angels)	

St. Mary's Church, Berlin.

The organ in St. Mary's Church, Berlin, was originally built in 1722, by Joachim Wagner, but has received subsequent additions at the hands of Buchholz, of Berlin. The following are the stops of this instrument:

GREAT ORGAN.

	FEET.
1. Bourdon, 16 feet tone	
2. Principal	8
3. Rohrflote, 18 feet tone	
4. Viola di Gamba	8
5. Octave	4
6. Spitzflote	4
7. Quinte	2⅔
8. Super Octave	2
9. Cornett, 5 ranks	
10. Scharf, 5 ditto	
11. Cymbal, 3 ditto	
12. Trompete	8

CHOIR ORGAN.

1. Salicional	8
2. Gemshorn	8
3. Gedact, 8 feet tone	
4. Quintaton, 8 feet tone	
5. Octave	4
6. Fugara	4
7. Leiblich Flote, 4 feet tone	
8. Nassard	2⅔
9. Super Octave	2

ECHO ORGAN.

1. Quintaton, 16 feet tone	
2. Principal	8
3. Gedact, 8 feet tone	
4. Octave	4
5. Rohrflote, 4 feet tone	
6. Nassard	2⅔
7. Super Octave	2
8. Sifflote	1
9. Mixture, Major / Ditto Minor — 4 ranks	
10. Hauthois, Discant / Fagott, Bass —	8

PEDAL ORGAN.

1. Principal, in front	16
2. Sub Bass, 16 feet tone	
3. Violon	16
4. Gross Nassard	10⅔
5. Gemshorn	8
6. Bass Flote, 8 feet tone	
7. Octave	4
8. Contra Posaune	32
9. Posaune	16

ACCESSORY STOPS.

1. Choir to Great
2. Echo to Ditto
3. Great to Pedal

Four Wind Trunk Valves.

St. Elizabeth's Church, Breslau.

The large organ in St. Elizabeth's Church, Breslau, was built by Michael Engler, in 1750, and has since been enlarged by Muller, in 1830. In the choir there is a smaller organ, containing 17 stops. The details of the large organ are as follows:

GREAT ORGAN.

CC to C in alt, without CC sharp.

		FEET.
1	Salicet ... tin	16
2.	Quintaton, 16 ft. tone ... ditto	
3.	Bourdon, ditto ... wood	
4.	Principal ... tin	8
5.	Gemshorn ... ditto	8
6.	Salicet ... ditto	8
7.	Flaut Major, 8ft. tone, wood	
8.	Octave ... tin	4
9	Nashthorn ...	4
10.	Quinte ...	2⅔
11.	Super Octave ...	2
12.	Cymbel, 3 ranks	
13,	Mixture, 6 ditto	
14.	Muset Bass ...	16
15.	Trompet ... metal	8
16.	Vox Humana ... tin (Labial)	8

CHOIR ORGAN.

CC to C in alt, without CC sharp.

	FEET.
1. Principal	8
2. Flaute Allemande ....tin	8
3. Flaut Amabile ....wood	8
4. Quintaton, 8 feet tone, ditto	
5. Octave ....tin	4
6. Portunal ....wood	4
7. Quinte....metal	2⅔
8. Super Octave ....tin	2
9. Mixtur, 3 ranks	
10. Oboe....metal	8

ECHO ORGAN.

CC to C in alt. without CC sharp.

1. Bourdon, 16 ft. tone...wood	
2. Principal ....tin	8
3. Salicet ....ditto	8
4. Fugara ....ditto	8
5. Flaut Amabile ....wood	8
6. Octave ....tin	4
7. Spitzflote....wood	4
8. Rohrflote, 4 ft. tone ...ditto	
9. Quinte....metal	2⅔
10. Super Octave ....tin	2
11. Terz ....tin	1⅗
12. Ranchquints ....tin	2⅔
13. Mixture, 4 ranks	
14. Schalmey, 8 ft. tone...metal	

PEDAL ORGAN.

CCC to Tenor E, without CCC sharp.

	FEET.
1. Major Bass, 32ft. tone, wood	
2. Principal ....tin in front	16
3. Salicet ....tin and wood	16
4. Violon ....wood	16
5. Sub Bass, 16ft. tone ...ditto	
6. Quintaton, ditto. ....ditto	
7. Principal ....tin in front	8
8. Bass Flote, 8 ft. tone...wood	
9. Gemshorn Quint ....metal	5⅓
10 Super Octave ....tin	4
11. Mixture, 5 ranks ....metal	
12. Posaun....wood	32
13. Ditto ....ditto	16
14 Trompete ....tin	8

ACCESSORY STOPS.

1. Choir to Great
2. Echo to ditto
3. Wind Valve to Great
4. Ditto to Echo
5. Ditto to Choir
6. Wind Valve to Pedal Flue Work
7. Ditto to Pedal Reed Work

Church of St. Mary Magdalen, Breslau.

The old part of the large organ in the Church of St. Mary Magdalen, at Breslau, is the work of John Röder, of Berlin, who constructed it in 1725. Additions were afterwards made to the instrument in 1821, by Engler. There is, besides the large organ, a small one in the choir of 12 stops. The following are the stops of the large organ:

GREAT ORGAN.

CC to C in alt, without CC sharp.

	FEET.
1. Contra Principal...tin, in front	16
2. Quintaton, 16 ft. tone, metal	
3. Principal ....ditto	8
4. Salicet ....tin	8
5. Flaut Allemande Major, 8 ft. tone ....wood	
6. Quintaton, 8 tone....metal	
7. Octave ....ditto	4
8. Rohrflote, 4 ft. tone ... ditto	

		FEET.
9.	Quinte..... .....metal	2⅔
10.	Super Octave .....ditto	2
11.	Scharf, 4 ranks	1
12.	Mixture, 8 ranks.....	1½
13.	Rauschquint, 2 ranks	2⅔
14.	Trompet.....metal	8

CHOIR ORGAN.

CC to C in alt, without CC sharp.

1.	Principal,.....tin in front	8
2.	Salicet to fiddle G.....wood	8
3.	Flaut Allemand.....metal	8
4.	Flaut Amabile .....wood	8
5.	Octave.....metal	4
6.	Spitzflote.....ditto	4
7.	Doppelflaut, 4ft. tone, wood	
8.	Quint.....metal	2⅔
9.	Super Octave ....ditto	2
10.	Cymbel, 2 ranks	1½
11.	Mixture, 4 ranks.....	1
12.	Oboe, ...metal	8

ECHO ORGAN.

CC to C in alt, without CC sharp.

1.	Principal.....tin in front	8
2.	Gemshorn .....metal	8
3.	Salicet to Tenor F.....tin	8
4.	Flaut Major, 8 ft. tone, wood	
5.	Octave... .....metal	4
6.	Doppel Spitzflote .....wood	4
7.	Fugara .....metal	4
8.	Quint .....ditto	2⅔
9.	Super Octave .....ditto	2
10.	Waldflote.....ditto	2
11.	Mixture, 6 ranks .....ditto	1½
12.	Cymbel, 3 ranks..... metal	1½
13.	Vox Humana, 8 ft. tone, wood	

PEDAL ORGAN.

CCC to Tenor D, without CCC sharp.

1.	Principal	32
2.	Octave.....metal	16
3.	Violon .....wood	16
4.	Salicet .....ditto	16
5.	Sub Bass, 16 ft. tone...ditto	8
6.	Octaven-Bass .....ditto	8
7.	Violoncello .....ditto	8
8.	Doppelflioten Bass, 8 ft. tone wood	
9.	Flauten-Bass .....ditto	8
10.	Quinte.....metal	5⅓
11.	Super Octave .....ditto	4
12.	Mixture, 5 ranks .....metal	4
13.	Posaune .....wood	32
14.	Ditto .....ditto	16
15.	Fagott.....metal	16
16.	Trompete.....tin	8

ACCESSORY STOPS, ETC.

1. Choir to Great
2. Echo to Great
3. Wind Valve to Great
4. Ditto to Choir
5. Ditto to Echo
6. Ditto to Pedal, Flue-work
7. Ditto to Pedal, Reed-work
8. Glockenspiel to Great
9. Ditto to Pedal

Cathedral Church of St. John, Breslau.

The Cathedral Church of St. John, Breslau, contains no less than three distinct organs; one in the nave, a second in the choir, and the third in one of the small chapels. The following are the details of the largest, or nave organ:

GREAT PEDAL ORGAN.

CC to F in alt.

		FEET.
1.	Principal, in front.....tin	16
2.	Quintaton, 16 ft. tone, metal	
3.	Octave, in front.....tin	8
4.	Gemshorn .....metal	8
5.	Salicet .....ditto	8
6.	Quintaton, 8 feet tone, metal	
7.	Flaut Major.....wood	8
8.	Quinta.....metal	5⅓
9.	Super Octave .....ditto	4
10.	Rohrflote, 4 feet tone...ditto	4
11.	Gemshorn .....ditto	4

		FEET.
12.	Quinta.....metal	2⅔
13.	Sedecima .....ditto	2
14.	Scharf, 4 ranks .....ditto	
15.	Mixture, 7 ranks .....ditto	
16.	Trompete, 8 feet.....tin	

CHOIR ORGAN.
CC to F in alt.

1.	Principal, in front.....tin	8
2.	Gamba.....metal	8
3.	Flaut traverse	8
4.	Quintaton, 8 feet tone	
5.	Flaut Douce.....	8
6.	Flaut Major	8
7.	Octave.....metal	4
8.	Flaut Major .....wood	4
9.	Quinta.....metal	2⅔
10.	Super Octave .....ditto	2
11.	Mixture, 4 ranks .....ditto	
12.	Oboïs.....ditto	8

ECHO ORGAN.
CC to F in alt.

1.	Bourdon, 16 ft. tone, maple-wood	
2.	Principal..... .....tin	8
3.	Salicet .....ditto	8
4.	Flaut Allemande .....metal	8
5.	Doppel Rohrflote, 8 ft. tone maple	
6.	Octave .....tin	4
7.	Salicet .....ditto	4
8.	Spitzflote .....metal	4
9.	Doppel Rohrflote, 4 ft. tone metal	
10.	Nassat .....metal	2⅔
11.	Super Octave .....ditto	2
12.	Cymbel, 3 ranks .....metal	
13.	Mixture, 6 ranks .....metal	
14.	Clarinett, 8 feet tone.....tin	

PEDAL ORGAN.
CCC to Tenor C.

1.	Principal of tin to FFFF sharp, 23 feet, and in front; the lower Pipes of wood	32
2.	Octave.....metal	16
3.	Violon .....wood	16
4.	Gamba .....ditto	16
5.	Sub Bass, 16 feet tone...oak	
6.	Quintaton, 16 ditto...ditto	
7.	Gemshorn Quint.....metal	10⅔
8.	Principal.....tin	8
9.	Gemshorn .....metal	8
10.	Violoncello .....wood	8
11.	Doppelflote, 8 ft. tone...oak	
12.	Quinta.....metal	5⅓
13.	Sedecima .....ditto	4
14.	Nachthorn .....oak	4
15.	Posaun..... .....wood	32
16.	Posaun .....ditto	16
17.	Fagott .....ditto	16
18.	Trompete.....tin	8

ACCESSORY STOPS.

1. Echo to Great
2. Choir to ditto
3. Great to Pedal
4. Wind Valve to Great
5. Ditto to Choir
6. Ditto to Echo
7. Ditto to Great Pedal Sound Board
8. Ditto to Pedal Reed Work, and 32 feet Principal

St. Paul's Church, Frnnkfort on the Maine.

The organ in St. Paul's Church, at Frankfort on the Maine, was built by Eberhard Friederich Walcker, of Louisbourg, in 1833. It has 12 pairs of bellows, 7 of which supply wind to the manuals, and 5 to the pedals.

The pedals for expression are placed on an axis, so that in pressing with the point of the foot the sound is augmented,

and, on the contrary, by pressing with the heel the sound is diminished.

This instrument cost 30,000 florins (64,500 francs).

The following is a list of the stops:

GREAT ORGAN.
First Manual (Lower).

	FEET.
1. Untersatz, 32 feet tone	
2. Principal (in front)	16
3. Tuba (reed stop)	16
4. Viola Major	16
5. Tibia Major	16
6. Gros Octave	8
7. Jubal Flöte, 2 mouths	8
8. Gemshorn	8
9. Viol di Gamba	8
10 Trumpet	8
11. Octave	4
12. Fugara	4
13. Hohlpfeife	4
14. Waldflöte	2
15. Super Octave, 2 ranks	2
16. Klein Octave	1
17. Quint	5⅓
18. Gemshorn Terz	3⅕
19. Quint	2⅔
20. Terz Discant	1⅗
21 Cornet, 5 ranks	10⅔
22. Mixture, 4 ranks	2
23. Scharf, 5 ranks	1

CHOIR ORGAN.
Second Manual (Middle).

1. Bourdon, 16 feet tone	
2. Principal (in front)	8
3. Salicional	8
4. Dolce	8
5. Gedackt, 8 feet tone	
6. Quintatön, 8 feet tone	
7. Vox Humana (free reed)	8
8. Posaune	8
9. Octave	4
10. Flüte Traversière	4
11. Rohrflöte, 4 feet tone	
12. Octave	2
13. Quintflote, 5⅓ feet tone	
14. Gemshorn Quint	2⅔
15. Mixture, 5 ranks	2

ECHO ORGAN.
Third Manual (Upper).

	FEET.
1. Quintatön, 16 feet tone	
2. Principal	8
3. Liebliche Gedackt, 2 mouths, 8 feet tone	
4. Hohlflote	8
5. Bifra	8
6. Hautbois (free reed)	8
7. Harmonica	8
8. Physharmonica (free reed)	8
9. Dolcissimo	4
10. Spitzflote	4
11. Flute d'Amour	4
12. Gedackt, 4 feet tone	
13. Flautino	2
14. Nazard	2⅔

FIRST PEDAL.
(Lower Pedal.)

1. Sub Bass (open)	32
2. Contra Bass (open)	32
3. Octave Bass	16
4. Principal Bass (in front)	16
5. Violon	16
6. Posaune	16
7. Octave	8
8. Violoncello	8
9. Trompete	8
10. Octave	4
11. Clarino	4
12. Cornettino	2
13. Quint	10⅔
14. Terz	6⅖
15. Quint	5⅓

SECOND PEDAL.
(Upper Pedal).

1. Sub Bass, 16 feet tone	
2. Violon d'Amour	16
3. Fagott (free reed)	16
4. Principal	8
5. Flöten Bass	8
6. Flöte	4
7. Waldflöte	2

ACCESSORY REGISTERS.

1. Valve to admit the wind to the first manual.
2. Ditto ditto ditto second ditto.
3. Ditto ditto ditto third ditto.
4. Ditto ditto ditto first pedal.
5. Ditto ditto ditto second ditto.
6. Copula, first manual with the second manual.
7. Ditto, second manual with the third ditto.
8. Ditto, first pedal with the second pedal.
9. Ditto, ditto ditto first manual.
10. Ditto, second pedal with the second ditto.
11. Bell to give notice to the blower.
12. Distribution of the wind to the manuals, &c.
13. Tremblant

ACCESSORY PEDALS.

1. For the crescendo on the second manual } By means of the
2. Ditto ditto ditto third ditto } valves (pallets).
3. Ditto ditto ditto third ditto, by means of Venetian
4. Crescendo for the physharmonica. [shutters.

COMPASS.

Manuals, CC to F in alt. 54 keys. Pedal, CCC to Tenor D, 27 Notes.

St. Peter and St. Paul, Goerlitz.

The organ in the church of St. Peter and St. Paul, at Goerlitz, was built by Eugenius Casparini and his son Adam Horatius, in six years, and was consecrated by a solemn service, August 19, 1708. It has 82 stops, 57 of which are whole stops; and 3270 pipes, 522 of which are metal. The towers in front show above 280 pipes of polished tin, the largest of which, FFFF in the pedals, is 24 feet in length. There are seven others of 16 feet; the lowest note, C, is 32 feet. This organ has 12 pairs of bellows, and contains the following stops:

GREAT ORGAN.

	FEET.
1. Principal (in front)...metal	16
2. Octave Principal.....	8
3. Vox Humana	8
4. Viol di Gamba, 8 feet tone	
5. Quintadena, 8 feet tone	
6. Flute Quinte	5½
7. Super Octave	4
8. Salicional.....	4
9. Gedact, 8 feet töne	
10. Fifteenth	3
11. Sedecima	2
12. Quinte	1½
13. Rauschpfeife, 3 ranks	
14. Trompete	8
15. Mixture, 5 ranks	
16. Bombard	16

CHOIR ORGAN.

	FEET.
1. Principal .....metal	8
2. Quintadena, cypress wood, 16 feet tone	
3. Unda Maris, cypress wood, 8 feet tone	
4. Octave	

	FEET.
5. Flute, 4 feet tone	
6. Flageolet	2
7. Cornet, 5 ranks	
8. Super Sedecima	1
9. Quinte	2⅔
10. Sedecima	2
11. Mixture, 2 ranks	
12. Cymbel, 2 ranks	

SWELL ORGAN.

1. Principal	4
2. Gedact, 8 feet tone	
3. Hautbois	8
4. Flageolet	2
5. Octave	2
6. Nason	1½
7. Sedecima	1
8. Mixture, 3 ranks	

PEDAL ORGAN.

Compass of Pedals, 2 octaves, from CCC to tenor C.

1. Gross Principal...tin	32
2. Posaune	16
3. Violon, Bass	16
4. Chalmey, Bass, 8 feet tone	

	FE
5. Quinte	
6. Tubal Flute	
7. Scharf, 2 ranks	
8. Rustic Flute	
9. Mixture, 5 ranks	
10. Trumpet	
11. Jungfernregal	
12. Tubal Flute	
13. Cymbel, 2 ranks	
14. Tubal Flute	
15. Super Octave	
16. Corno	
17. Bourdon, 16 feet tone	
18. Fagott	
19. Quintadena, 8 feet tone	

ACCESSORY STOPS.

1. Wind to Great Organ
2. Ditto to Upper ditto
3. Ditto to Lower ditto
4. Ditto to Great Pedal Pipes sight
5. Ditto to Little ditto
6. Ditto to Upper Bass
7. Ditto to Under ditto

Cathedral Church, Halberstadt.

The organ in the Cathedral Church at Halberstadt w built by J. F. Schulze. It is remarkable for having a feet reed on the manual. The following is a list of t stops it contains :*

FIRST MANUAL.

	FEET.
1. Principal	16
2. Octave	8
3. Gemshorn	8
4. Gedact, 8 feet tone	
5. Nasat	5⅓
6. Octave	4
7. Gedact, 4 feet tone	
8. Quinte	2⅔
9. Octave	2

	FE
10. Mixture, 6 ranks	
11. Scharf, 4 ranks	
12. Cornett, 4 ranks	
13. Contrafagott	
14. Trompete	
15. Trompete	

SECOND MANUAL.

1. Gedact, 16 feet tone	
2. Quintaton	
3. Principal	

* An account of the original organ, containing 74 stops, built Heinrich Herbst and Son, of Magdeburgh, and finished in 1718, given in the third edition of this work.

	FEET.
4. Viola di Gamba	8
5. Hohlflote	8
6. Gedact, 8 feet tone	
7. Octave	4
8. Flute Douce	4
9. Quinte	2⅔
10. Octave	2
11. Mixture, 5 ranks	
12. Cymbel, 3 ranks	
13. Hautbois	8

THIRD MANUAL.

1. Bourdon, 16 feet tone	
2. Principal	8
3. Salcional	8
4. Gedact, 8 feet tone	
5. Octave	4
6. Spitzflote	4
7. Nasat	2⅔
8. Octave	2
9. Mixture, 4 ranks	
10. Cornet, 3 ranks	
11. Vox Humana, 8 feet tone	

FOURTH MANUAL.

1. Lieblich Gedact, 16 feet tone	
2. Terpodion	8

	FEET.
3. Harmonica	8
4. Flauto Traverso	8
5. Lieblich Gedact, 8 feet tone	
6. Principal	4
7. Flauto	4
8. Physharmonica	8

PEDAL ORGAN.

1. Untersatz, 32 feet tone	
2. Principal	16
3. Violone	16
4. Sub Bass, 16 feet tone	
5. Ditto	16
6. Gross Nasat	10⅔
7. Octave	8
8. Violoncello	8
9. Gedact, 8 feet tone	
10. Tertia	6⅖
11. Nasat	5⅓
12. Octave	4
13. Mixture, 6 ranks	
14. Cornett, 5 ranks	
15. Posaune	32
16. Ditto	16
17. Trompete	8
18. Ditto	4

Christ Church, Hirschberg.

The following is a description of the large organ in Christ Church, Hirschberg:

FIRST MANUAL.

		FEET.
1. Principal	⅔ tin	16
2. Quintaton, metal, 16 ft tone		
3. Principal	Eng. tin	8
4. Gemshorn	metal	8
5. Hohlflote	wood	8
6. Nasard	tin	5⅓
7. Super Octave	ditto	4
8. Flute Douce	wood	4
9. Quinte	tin	2⅔
10. Vigesima	2nda tin	2
11. Rauschquinte, tin, 2 ranks		1⅓
12. Mixture, tin, 5 ranks		2
13. Scharf, tin, 4 ranks		1⅓
14. Cymbel, tin, 3 ranks		1
15. Tromba	⅔ tin	16
16. Trompete	⅔ tin	8

SECOND MANUAL.

1. Bourdon, oak wood, 16 ft. tone		
2. Principal	tin, in front	8
3. Gedact, metal, 8 feet tone		
4. Quintaton, metal, 8 ft. tone		
5. Octave	tin	4
6. Gemshorn	ditto	4
7. Quinte	ditto	2⅔
8. Super Octave	ditto	2
9. Ters	ditto	1⅗
10. Flageolet	ditto	1
11. Mixture, 6 ranks	ditto	2
12. Cymbel, 3 ranks	ditto	1⅓
13. Vox Humana, ⅔ tin, 8 ft. tone		

THIRD MANUAL.

1. Principal	Eng. tin	8
2. Fugara, pine and maple wood		8
3. Gedact, oak wood, 8 ft. tone		

		FELT.
4.	Octave	4
5.	Rohrflote, metal, 4 ft. tone	
6.	Quinte	2⅔
7.	Super Octave	2
8.	Mixture, 4 ranks	
9.	Sesquialtera, 2 ranks	
10.	Schalomo, tin, 8 feet tone	

FOURTH MANUAL.

1.	Prestant	tin	8
2.	Flüt Douce	wood	8
3.	Octave	tin	4
4.	Flüt Traversiere	wood	4
5.	Super Octave	tin	2
6.	Cornet, 2 ranks	ditto	1⅓
7.	Oboe, im Descant / Fagotto, im Bass	wood	8

PEDAL ORGAN.

1.	Untersaz, wood, 32 ft. tone		
2.	Principal	Eng. tin	16
3.	Violon		16
4.	Quintation, 16 feet tone		
5.	Sub Bass		16
6.	Octave	wood & metal	8
7.	Violoncello		8
8.	Quinte	metal	5⅓
9.	Super Octave	tin	4
10.	Nachthorn	ditto	2
11.	Mixtur, 5 ranks	ditto	2⅔
12.	Ranschquinte, 2 ranks, ditto		
13.	Contraposaune	wood	32
14.	Posaune	ditto	16
15.	Trompete	ditto	8
16.	Clarino	ditto	4

ACCESSORY STOPS.

1 to 4. Couplers for all 4 Manuals
5. Coupler Great to Pedal
6. Tremulant, and seven Wind Trunk Valves

Church of Saints Peter and Paul, Liegnitz.

The organ in the Church of Saints Peter and Paul, at Liegnitz, was erected by Buckow, in 1839, and has the following stops:

GREAT ORGAN.

		FEET.
1.	Bourdon, wood, 16 feet tone	
2.	Principal	8
3.	Gemshorn	8
4.	Viola d'Amour	8
5.	Flaut Grave	8
6.	Flaut Douce	8
7.	Octave	4
8.	Flaut Dolce	4
9.	Quint	2⅔
10.	Super Octave	2
11.	Flautino	2
12.	Progressio, 3, 4, and 5 ranks	2
13.	Cornet, 3 ranks	5⅓, 4, & 3⅕

CHOIR ORGAN.

1.	Quintaton, tin, the great octave of wood, 16 ft. tone		
2.	Salicional	Eng. tin	8
3.	Prestant	ditto	8
4.	Pyramid Flote	wood	8
5.	Piffaro	Eng tin	4
6.	Flautino	ditto	2
7.	Cornet, 3 ranks, Eng. tin,		2⅔, 2, & 1⅗
8.	Oboe		8

ECHO ORGAN.

1.	Prestant	tin	8
2.	Viola di Gamba	tin	8
3.	Flant Amabile, metal, the bass octave of wood		8
4.	Principal	Eng. tin	4
5.	Flauto Amoroso	metal	4
6.	Spitzflote Quint	tin	2⅔
7.	Octave	tin	2
8.	Flauto Piccolo	tin	1
9.	Mixture, 3 ranks		1⅗

PEDAL ORGAN.

1.	Principal, polished tin, in front		16
2.	Violon	oak	16
3.	Prestant	ditto	16
4.	Sub Bass, oak, 16 feet tone		
5.	Principal		8
6.	Violoncello	wood	8

	FEET.
7. Bass Flote, wood, 8 feet tone	
8. Quint.....tin & wood	5⅓
9. Super Octave	4
10. Octave	2
11. Posaune	16
12. Trompete	8

ACCESSORY STOPS, ETC.

1. Choir to Great
2. Echo to ditto
3. Great to Pedal
   Four Wind Trunk Valves

Mülhausen Church.

The large organ at Mülhausen Church has 14 pairs of bellows, cymbel-stars, drums, and the following stops:

GREAT MANUAL.
(*Hauptwerk*)

	FEET.
1. Principal	8
2. Bordun, 16 feet tone	
3. Octave	4
4. Super Octave	2
5. Quinte	2⅔
6. Sexte.....	2⅖
7. Sifflöte	1
8. Mixture, 7 & 8 ranks	
9. Mixture, 6 ranks	
10. Spitsflöte	8
11. Salcional	8
12. Waldhorn.....	2
13. Offeneflöte	4
14. Surdun, 16 feet tone	
15. Zink (reed)	8

CHOIR MANUAL.
(*Ruckpositive.*)

1. Principal	8
2. Gedackt, 8 feet tone	
3. Quintaton, 8 feet tone	
4. Quintaton, 4 feet tone	
5. Hohlflote	4
6. Gemshorn	2
7. Querflöte	4
8. Super Octave	2
9. Sifflöte	1
10. Quinte	2⅔
11. Tertian	2
12. Mixture, 6 ranks	
13. Dulcian.....	16
14. Krummhorn	8

UPPER MANUAL (ECHO).
(*Oberpositive.*)

	FEET.
1. Principal	8
2. Salcional	16
3. Viol di Gamba.....	8
4. Flöte Douce.....	2
5. Waldflöte.....	4
6. Spitzflöte	4
7. Quinte	2⅔
8. Tertia	2
9. Cymbal, 4 ranks	
10. Hohlflöte	8
11. Harfen-regal	16
12. Hautbois	8
13. Trompete	4

PEDAL ORGAN.

1. Principal	16
2. Sub Bass, 32 feet tone	
3. Sub Bass, 16 feet tone	
4. Octave	8
5. Waldflote.....	8
6. Octave	4
7. Quintatön, 4 feet tone	
8. Nachthorn	4
9. Super Octave.....	2
10. Super-super-octave	1
11. Mixture, 10 ranks	
12. Posaune	32
13. Posaune	16
14. Dulcian.....	16
15. Trompete	8
16. Krummhorn, 8 ft. tone	
17. Schalmei, 4 ft. tone	
13. Cornet	8

The Old Church, Amsterdam.

The organ in the Old Church at Amsterdam was begun in 1725. It is a most effective instrument; all the foundation stops are *doubled*, which increases the fulness and solidity of the tone. The reed stops and mixtures are also very good, and the mechanism is very fair for so old an organ. It contains the following stops:

GREAT ORGAN.

CC to D in alt.	FEET.
1. Prestant	16
2. Bourdon, 16 feet tone	
3. Octaaf	8
4. Holpyp	8
5. Quint	5⅓
6. Octaaf	4
7. Roerfluit, 4 feet tone	
8. Roerquint, 2⅔ feet tone	
9. Octaaf	2
10. Fluit	2
11. Flageolet	1
12. Sesquialtera, 4 ranks	2⅔
13. Mixture, 5, 6, and 8 ranks	
14. Scherp, 6 ranks	
15. Trompet	16
16. Trompet	8

CHOIR ORGAN.

CC to D in alt.	
1. Prestant	8
2. Gedact, 8 feet tone	
3. Quintaton, 8 ditto	
4. Dulciana	8
5. Octaaf	4
6. Fluit	4
7. Quint	2⅔
8. Octaaf	2
9. Sesquialtera, 4 ranks	2⅔
10. Mixture, 7 and 8 ranks	
11. Scherp, 6 ranks	
12. Trompete	8

ECHO ORGAN.

CC to D in alt.	
1. Quintaton, 16 feet tone	
2. Prestant	8
3. Baarpyp	8
4. Gamba	8
5. Octaaf	4
6. Gemshorn	4
7. Nasat	2⅔
8. Super Octaaf	2
9. Sesquialtera, 3 ranks	2⅔
10. Cymbal, 3 ranks	
11. Fagotto	16
12. Trompet	8
13. Vox Humana	8

PEDAL ORGAN.

CCC to Tenor D.	
1. Prestant	16
2. Sub Bass, 16 feet tone	
3. Octaaf	8
4. Roerquint, 5⅓ feet tone	
5. Octaaf	4
6. Nachthorn	2
7. Buzain	16
8. Trompet	8
9. Ditto	4
10. Cornetin	2

ACCESSORY STOPS, ETC.

1. Echo to Great
2. Choir to ditto
3. Great to Pedals
4. Tremulant Echo

The New Church, Amsterdam.

The organ in the New Church at Amsterdam is a very old one. The original builder's name is unknown; but it was repaired and enlarged in 1673, by J. Duyscher van Goor, of

Dordrecht. It is a most excellent instrument, though scarcely equal to that in the Old Church. The Mixtures, however, are very brilliant, and the reeds well voiced. The following are its contents:

GREAT ORGAN.
CC to D in alt, 51 Notes.

	FEET.
1. Prestant	16
2. Quintadena, 16 feet tone	
3. Octaaf	8
4. Holpyp	8
5. Octaaf	4
6. Gemshorn	4
7. Quint	2⅔
8. Siflet	2
9. Mixture, 6 ranks	
10. Scherp, 7 ranks	
11. Fagot	16
12. Trompet	8

CHOIR ORGAN.
CC to D in alt, 51 Notes.

1. Prestant	8
2. Holpyp	8
3. Quintadena, 8 feet tone	
4. Octaaf	8
5. Fluit	4
6. Quint Fluit	2⅔
7. Octaaf	2
8. Fluit	2
9. Siflet	1
10. Sesquialtera, 2 ranks	2⅔
11. Mixture, 3 ranks	
12. Scherp, 6 ranks	
13. Quartane, 4 ranks	
14. Cornet, 5 ranks	

ECHO ORGAN.
CC to D in alt, 51 Notes.

	FEET.
1. Prestant	8
2. Quintadena, 8 feet tone	
3. Baarpyp	8
4. Gamba	8
5. Octaaf	4
6. Fluit	4
7. Octaaf	2
8. Sesquialtera	2⅔
9. Trompet	8
10. Vox Humana	8

PEDAL ORGAN.
CCC to Tenor D, 27 Notes.

1. Prestant	16
2. Bourdon, 16 feet tone	
3. Octaaf	8
4. Roerquint, 5⅓ feet tone	
5. Octaaf	4
6. Buzain	16
7. Trompet	8
8. Ditto	4

ACCESSORY STOPS, ETC.

1. Echo to Great
2. Choir to ditto
3. Great to Pedals
4. Tremulant Echo
5. Tremulant Choir
Four Wind Trunk Valves.

Delft, Holland.

The organ in the New Church, at Delft, was built by Batz, of Utrecht, and is altogether a very fine organ. Its stops are as follow:

GREAT ORGAN.
CC to F in alt. 54 Notes.

	FEET.
1. Prestant	16
2. Bourdon, 16 feet tone	
3. Octaaf	8
4. Roorfiote, 8 feet tone	
5. Octaaf	4
6. Gemshorn	4
7. Quint	2⅔
8. Octaaf	4

	FEET.
9. Mixtur, 4, 6, and 8 ranks	
10. Cornet, 5 ranks	
11. Fagot	16
12. Trompet	8
13. Ditto	4

CHOIR ORGAN.

CC to F in alt, 54 Notes.

1. Prestant	8
2. Holpyp	8
3. Quintadon, 8 feet tone	
4. Octaaf	4
5. Roorfluit, 4 feet tone	
6. Quint	2⅔
7. Octaaf	2
8. Mixtur, 3, 4, and 6 ranks	
9. Cornet, 4 ranks	
10. Trompet	8
11. Dulcian	8

ECHO ORGAN.

CC to F in alt. 54 Notes.

1. Prestant	8
2. Holpyp	8
3. Viol di Gamba	8
4. Quintadena, 8 feet tone	

	FEET.
5. Open Fluit	
6. Salicional	
7. Woodefluit	
8. Trompet	8
9. Vox Humana, 8 feet tone	

PEDAL ORGAN.

CCC to Tenor E, 29 Notes.

1. Prestant	16
2. Sub Bass, 16 feet tone	
3. Octaaf	8
4. Fluit Bass	8
5. Roorquint, 5⅓ feet tone	
6. Octaaf	4
7. Bazuin	16
8. Trompet	8
9. Ditto	4
10. Cincq	2

ACCESSORY STOPS, ETC.

1. Echo to Great
2. Choir to ditto
3. Great to Pedal
4. Tremulant

Four Wind Trunk Valves

Church of St. John the Baptist, Gouda, Holland.

The organ in the Church of St. John the Baptist, at Gouda, was built by Moreau, in 1736. One of the chief features in this instrument is its vox humana stop, which is particularly fine; but the tone of the whole organ is most excellent. The following is a list of the stops:

GREAT ORGAN.

CC to D in alt, 51 Notes.

	FEET.
1. Prestant	16
2. Ditto	8
3. Holpyp	8
4. Quint	5⅓
5. Octaaf	4
6. Roorfluit, 4 feet tone	
7. Open Fluit	4
8. Octaaf	2
9. Mixtur, 4 and 6 ranks	
10. Cornet, 5 ranks	
11. Trompet	16
12. Trompet	8
13. Schalmey, 8 feet tone	

CHOIR ORGAN.
CC to D in alt, 51 Notes.

		FEET.
1.	Bourdon, 16 feet tone	
2.	Prestant	8
3.	Holpyp	8
4.	Flute Traverso	8
5.	Octaaf	4
6.	Fluit Douce	4
7.	Quint	2⅔
8.	Octaaf	2
9.	Wondfluit	2
10.	Mixtur, 6 ranks	
11.	Scherp, 6 ditto	
12.	Cornet, 6 ditto	
13.	{ Carillon, discant, 3 ranks { Ditto, bass, 2 ditto	
14.	Trompet	8
15.	Dulcian	8

ECHO ORGAN.
CC to D in alt. 51 Notes.

		FEET.
1.	Prestant	8
2.	Salicional	8
3.	Echo Holpyp	8
4	Quintadeen, 8 feet tone	
5.	Octaaf	4
6.	Echo Fluit	4
7.	Octaaf	2
8.	Nacht-Hoorn	2
9.	Sesquialtera, 2 ranks	2⅔
10.	Flageolet	1
11.	Echo Trompet	8
12.	Vox Humana, 8 feet tone	

PEDAL ORGAN.
CCC to Tenor C, 25 Notes.

		FEET.
1.	Prestant	16
2.	Sub Bass, 16 feet tone	
3.	Prestant	8
4.	Wyd Gedact, 8 feet tone	
5.	Roorquint, 5⅓ feet tone	
6	Octaaf	4
7.	Holfluit	2
8.	Buzain	16
9.	Trompet	8
10.	Clairon	3
11.	Cornetin	2

ACCESSORY STOPS, ETC.

1. Great to Pedal
2. Choir to Great
3. Echo to ditto
4. Tremulant Echo
   Four Wind Trunk Valves

Lutheran Church at the Hague, Holland.

The organ in the Lutheran Church at the Hague is a very good instrument, and contains the following stops:

GREAT ORGAN.
CC to C in alt, 49 Notes.

		FEET.
1.	Bourdon, 16 feet tone	
2.	Prestant	8
3.	Roorfluit, 8 feet tone	
4.	Quintadon, 8 feet tone	
5.	Octaaf	4
6.	Nachthoorn	4
7.	Quint	2⅔
8.	Octaaf	2
9.	Wondefluit	2
10.	Mixture, 6 ranks	
11.	Cornet, 5 ranks	
12.	Fagot	16
13.	Trompet	8
14.	Ditto	4

CHOIR ORGAN.
CC to C in alt, 49 Notes.

		FEET.
1.	Prestant	8
2.	Holpyp	8
3.	Octaaf	4
4.	Fluit	4
5.	Octaaf	2
6.	Sesquialtera, 2 ranks	2⅔
7.	Flageolet	1
8.	Mixture, 3 ranks	2
9.	Dulciana	8

ECHO ORGAN.
CC to C in alt. 49 Notes.

		FEET.
1.	Prestant	8
2.	Baarpyp	8
3.	Quintadon, 8 feet tone	

	FEET.
4. Salicional	4
5. Roorfluit, 4 feet tone	
6. Fluit	2
7. Schalmey, 8 feet tone	
8. Vox Humana, 8 feet tone	

PEDAL ORGAN.
CCC to Tenor C, 25 Notes.

1. Prestant	16
2. Bourdon, 16 feet tone	
3. Prestant	8
4. Roorquint, 5⅓ feet tone	

	FEET.
5. Octaaf	4
6. Trompet	16
7. Ditto	8
8. Ditto	4

ACCESSORY STOPS, ETC.

1. Choir to Great
2. Echo to ditto
3. Great to Pedals
4. Tremulant Echo
5. Ditto Choir

Four Wind Trunk Valves.

Cathedral Church of St. Bavon, Haarlem.

The organ in the Cathedral Church of St. Bavon, Haarlem, which, in the annals of organ-building, has so long been considered as one of the largest, as well as one of the finest instruments in the world, was built by Christian Müller, of Amsterdam, and was nearly three years and a half in course of construction; it was commenced on the 23rd of April, 1735, and finished on the 13th of September, 1738. All the stops are whole ones, excepting the cornet and the hautboy in the great organ. Many of the stops have two pipes to each key in the treble. All the stops are made of metal, excepting the pedal sub-bass, which is of wood, and is a subsequent insertion. The front pipes, which include the pedal sub-principal, of 32 feet, are of pure English tin, burnished, and all the interior metal pipes are formed of a composition of half tin and lead. The 32 feet pipe, which is 15 inches in diameter, and nearly 40 feet long, stands in one of the chief towers. The organ is 90 feet in height, and 50 feet in breadth; and altogether, with its magnificent case, cost about £10,000. The following is a list of its stops:

GREAT ORGAN.

CC to D in alt. 51 Notes.

FEET.	PIPES.
16. Prestant	78
16 tone. Bourdon	51
8. Octave	78
8. Viol di Gamba	51
8 tone. Roerfluit	51
4. Octave	51
4. Gemshorn	51
5⅓ tone. Roerquint	51
2⅔. Quint Prestant	51
Tertian, 2 ranks	102
Mixture, 6, 8, and 10 ranks	339
2. Holzfluit	
16. Trumpet	51
8 Trumpet	51
4. Trumpet	51
8. Hautbois	51

UPPER MANUAL (ECHO ORGAN).

CC to D in alt. 51 Notes.

8. Prestant	51
16 tone. Quintadena	51
8 tone. Quintadena	51
8. Baarpyp	51
4. Octave	51
4. Flag-fluit	51
2⅔. Nassat	51
2. Nacht-horn	51
Night-horn, but why so called no reason can be given.	
1⅓ Flageolet	51
Sesquialtera, 2 ranks	102
Cymbel, 4 ranks	108
Mixture, 4, 5, & 6 ranks	246
8. Schalmei	51
8. Dulcian	51
8. Vox Humana	51

POSITIF (CHOIR ORGAN).

CC to D in alt. 51 Notes.

(In Front.)

The lowest set of keys.

8. Prestant	95
8. Holfluit	51
8 tone. Quintadena	51
4. Octave	51
4. Flute Doux	51
2⅔. Speel-fluit	51
Sesquialtera, 2, 3, & 4 ranks	144
2. Super Octave	51
Scherp, or Mixture, 6, 7, & 8 ranks	360
Cornet, 5 ranks	108
Cimbel, 2 ranks	102
16. Fagotta	51
8. Trumpet	51
8. Regal	51

Formerly, a portable Organ, used in processions, was called a regal; the stop in this organ is entirely composed of reeds.

PEDAL ORGAN.

CCC to Tenor D, 27 Notes.

32. Sub Principal	27
16. Prestant	27
16. Sub Bass	27
10⅔ tone. Roerquint	27
8. Holfluit	27
8. Octave	27
5⅓. Quint Prestant	27
4. Octave	27
2⅔. Ruis-quint, (rush or reed) 5 ranks	27
2. Holfluit	27
32. Buzain	27
16. Buzain	27
8. Trumpet	27
4. Trumpet	27
2. Cinq	27

ACCESSORY STOPS, ETC.

1. Choir to Great
2. Echo to ditto
3 & 4. Two Tremulants
5. Wind, Great Organ
6. Ditto, Choir ditto
7. Ditto, Echo ditto
8. Ditto, Pedal ditto

There are 12 bellows, 9 ft. by 5.

NUMBER OF PIPES.

Great Organ	1209
Choir Organ	1268
Echo Organ	1098
Pedal Organ	513
Total Number of Pipes	4088

NUMBER OF STOPS.

Great Organ	16
Choir Organ	14
Echo Organ	15
Pedal Organ	15
Accessory Stops, etc.	8
Total Number of Stops	68

St. Stephen's Church, Nymengen, Holland.

The organ in St. Stephen's Church, at Nymeng Holland, was built in 1766, by König, of Cologne. much larger as well as a more complete instrumen any which König built for his own city, and is one best in Holland, particularly in regard to its solo sto

GREAT ORGAN.

CC to F in alt. 54 Notes.

	FEET.
1. Prestant	16
2. Octaaf	8
3. Gemshorn	8
4. Roer Gedact, 8 feet tone	
5 Quint Gedact, 5⅓ feet tone	
6. Octaaf	4
7. Roerflote, 4 feet tone	
8 Tertiaan	3⅕
9. Super Octaaf	2
10. Mixture, 6 ranks	
11. Fourniture, 3 ranks	
12. { Trompete, Discant } { Ditto, Bass }	16
13. Trompete	8

CHOIR ORGAN.

CC to F in alt. 54 Notes.

1. Bourdon, 16 feet tone	
2. Prestant	8
3. Flauto Traverso	8
4. Klein Bourdon, 8 feet tone	
5. Octaaf	4
6. Flute a Becq	4
7. Quint	2⅔
8. Klein Octave	2
9. Flageolet	1
10. Mixture, 6 ranks	
11. Carillon, 2 ranks	
12. Trompete	8
13. Bassoon	8
14. Vox Humana, 8 feet tone	

ECHO ORGAN.

CC to F in alt. 54 Notes.

1. Quintadena	16
2. Koppel	8
3. Viola di Gamba	
4. Weide Gedact, 8 feet to	
5. Octaaf	
6. Nazard and Composit ranks	
7. Super Octave	
8. Quint Flute	
9. Mixtur, 5 ranks	
10. Cornet, 5 ranks	
11. Echo, 2 ranks	
12. Hautbois	
13. Vox Humana, 8 feet to	
14. Vox Angelica, Bass	

PEDAL ORGAN.

CCC to Tenor D, 27 No

1. Principal	
2. Violon	
3. Sub Bass, 16 feet tone	
4. Quint Bass, 10⅔ feet to	
5. Octaaf	
6. Roer Bass, 8 feet tone	
7. Quint	
8. Octaaf	
9. Bombarde	
10. Trompete	
11. Clairon	
12. Cornet Bass	

ACCESSORY STOPS, ET

1. Great to Pedal
2. Choir to Great
3. Echo to ditto
4. Tremulant to Choir
   Four Wind Trunk Valv

Cathedral Church of St. Lawrence, Rotterdam.

he organ in the Cathedral Church of St. Lawrence is a fine and powerful instrument. It contains 76 stops, s designed to have 92. Its pipes number about 5,700, argest of which, standiug in front, measures 32 feet ing length, and 16 inches in diameter. The distribu- of its stops is as follows:

GREAT ORGAN.
C to F in alt. 54 Notes.

	FEET.
estant	16
urdon, 16 feet tone	
ave	8
estant	8
lpfeif	8
int	5⅓
ave	4
elflute	4
int	2⅔
ave	2
ndflute	2
quialtera, 2 ranks	2⅔
xture, 4, 5, and 6 ranks	
arf, 4 and 5 ranks	
net, 6 ranks	
mpete	16
lcian	16
mpete	8

POSITIF ORGAN.
C to F in alt. 54 Notes.

urdon, 16 feet tone	
estant	8
erflote, 8 feet tone	
te Traverse, Discant	8
ce	8
ave	4
erflote, 4 feet tone	
nshorn	4
quialtera, 2 ranks	2⅔
ave	2
nshorn	2
xture, 6 and 7 ranks	
xture, 4 and 5 ranks	
net, 6 ranks	
otto	16
mpete	8
e	8
otto	2

CHOIR ORGAN.
CC to F in alt. 54 Notes.

	FEET.
1. Quintadena, 16 feet tone	
2. Prestant	8
3. Quintadena, 8 feet tone	
4. Gamba	8
5. Holpfeif	8
6. Octave	4
7. Open Flute	4
8. Roerflote, 4 feet tone	
9. Octave	2
10. Flute	2
11. Flageolet	1
12. Cornet, 3 ranks	
13. Vox Humana, 8 feet tone	
14. Schalmay	8
15. Carillon, 3 ranks	

ECHO ORGAN.
CC to F in alt. 54 Notes.

1. Bourdon, 8 feet tone	
2. Salcional	8
3. Barpfeif	8
4. Gamba	8
5. Vox Angelica	8
6. Salcional	4
7. Fluit	4
8. Gemshorn	2

PEDAL ORGAN.
CCC to Tenor F, 30 Notes.

1. Prestant	32
2. Sub Bass, 32 feet tone	
3. Prestant	16
4. Sub Bass, 16 feet tone	
5. Bourdon, 16 feet tone	
6. Prestant	16
7. Quint	10⅔
8. Prestant	8
9. Octave	8
10. Ditto	4
11. Ditto	2

	FEET.
12. Buzain	32
13. Ditto	16
14. Trombone	8
15. Trompete	4
16. Cinq	2

ACCESSORY STOPS, ETC.

1. Echo to Great
2. Choir to ditto
3. Positif to ditto
4. Great to Pedal
   Two Tremulants
   Five Wind-trunk Valves

Octagon Church, Rotterdam.

The organ in the Octagon Church, Rotterdam, was bui by Batz, of Utrecht, in 1850, and is a very fine instrumen It is one of the very few German organs which have a swe and composition pedals. The following are its stops:

GREAT ORGAN.
CC to F in alt. 54 Notes.

	FEET.
1. Prestant	16
2. Octaaf	8
3. Gemshorn	8
4. Bourdon, 8 feet tone	
5. Octaaf	4
6. Fluit	4
7. Quint	2⅔
8. Octaaf	2
9. Mixture, 8 ranks	
10. Cornet, 5 ranks	
11. Fagot	1
12. Trompet	8
13. Clarinet	4

CHOIR ORGAN.
CC to F in alt. 54 Notes.

1. Bourdon, 16 feet tone	
2. Prestant	8
3. Viola di Gamba	8
4. Rohrfluit, 8 feet tone	
5. Octaaf	4
6. Open Fluit	4
7. Nazard	2⅔
8. Wondfluit	2
9. Cornet, 5 ranks	
10. Trompet	8
11. Dulcian	8

SWELL ORGAN.
CC to F in alt. 54 Notes.

	FEE
1. Gamba	
2. Salicional	
3. Holpyp	
4. Salicional	
5. Rohrfluit, 4 feet tone	
6. Gemshorn	
7. Schalmey	
8. Vox Humana	

PEDAL ORGAN.
CCC to Tenor F, 30 Notes.

1. Prestant	
2. Sub Bass, 16 feet tone	
3. Octaaf	
4. Fluit Bass	
5. Octaaf	
6. Buzain	
7. Trombone	
8. Trompet	

ACCESSORY STOPS, ETC.

1. Swell to Choir
2. Choir to Great
3. Tremulant Swell
4. Great to Pedal
5. Octave Pedal
   Four Wind trunk Valves
   Three Composition Pedals

The Protestant Church of Utrecht.

The organ in the principal Protestant Church at Utrec is a very fine one, and is remarkable for having two pip

to each key, from middle C upwards, throughout all the stops of the great organ. It was built by Batz, of Utrecht, in 1826, and contains the following stops:

GREAT ORGAN.
CC to F in alt. 54 Notes.

	FEET.
1. Prestant	16
2. Bourdon, metal treble, wood bass, 16 feet tone	
3. Octaaf	8
4. Roerfluit, 8 feet tone	
5. Octaaf	4
6. Gemshorn	4
7. Quint	2⅔
8. Octaaf	2
9. Gemshorn	2
10. Sesquialtera, 4 ranks	
11. Mixture, 7 ranks	
12. Fagott	16
13. Trompet	8

CHOIR ORGAN.
CC to F in alt. 54 Notes.

1 Prestant, 2 pipes all through	8
2. Holpyp	8
3. Quintadena	8
4. Octaaf	4
5. Roerfluit, 4 feet tone	
6. Quint	2⅔
7. Octaaf	2
8. Fluit	2
9. Mixture 5 ranks	
10. Scharf, 8 ranks	
11. Cornet, 5 ranks	
12. Trompet	8
13. Dulcian	8

ECHO ORGAN.
CC to F in alt. 54 Notes.

	FEET.
1. Prestant	8
2. Bourdon, 8 feet tone	
3. Gamba	8
4. Flute Traverse to Tenor C	8
5. Barpyp	8
6. Octaaf	4
7. Flute, open, large	4
8. Quint Fluit	2⅔
9. Wondfluit	2
10. Flageolet	1
11. Trompet	8
12. Vox Humaine	8
13. Carillon, 2 ranks	

PEDAL ORGAN.
CCC to Tenor D, 27 Notes.

1. Prestant, metal, in front	16
2. Sub-Bass, wood, 16 feet tone	
3. Octaaf metal	8
4. Fluit Bass, 8 feet tone	
5. Roerquint, 5⅓ feet tone	
6. Octaaf metal	4
7. Mixture, 6 ranks	2⅔
8. Buzain, CCC, 10 inches	16
9. Trombone	8
10. Trompet	4
11. Cinq	2
12. Clarion	1

ACCESSORY STOPS, ETC.

1. Positif to Great
2. Echo to ditto
3. Great to Pedals
4. Tremblant Positif

Four Wind-trunk Valves

Como Cathedral, Italy.

There are two organs in the Cathedral at Como. The oldest was built in 1596, and was afterwards much improved; but is now unplayable. The other was erected in 1650, by Hermann, a Jesuit, and is of exquisite tone. Its stops are as follows:

GREAT ORGAN.

CCC, short, to F in alt.

		FEET.
1.	Principa'e Soprano	32
2.	Ditto ditto e Basso	32
3.	Principale Soprano, 1mo	16
	Ditto Basso, 1mo	16
4.	Principale Sop. 2ndo	16
	Ditto Basso, 2ndo	16
5.	Principale Sop. 3zo	16
6.	Flauto Soprano	16
7.	Viola, Basso profonda	16
8.	Ottava Soprano, 1mo	8
	Ditto Basso, 1mo	8
9.	Ottava Soprano e Basso	8
10.	Flauto in ottava, Soprano e Basso	8
11.	Duodecima	6
12.	Quinta decima Soprano	4
	Ditto ditto Basso	4
13.	Ottavina Soprano	4
14.	Decima nona	3
15.	Vigesima seconda	2
16.	Ripieno di quattro	
17.	Ditto ditto	
18.	Tromba Soprano	16
	Ditto Bass	16
19.	Tromba di caccia, Sop.	16
	Fagotto Bass	16
20.	Voce Umana Soprano	16

CHOIR ORGAN.

CCC, short, to F in alt.

1.	Principale Soprano	16
	Ditto Basso	16
2.	Principale Soprano	16
3.	Flauto allemanno Soprano	16
4.	Violino Soprano	16
	Violone Basso	16
5.	Ottava Soprano	8
	Ditto Basso	8
6.	Flauto in ottava, Sop.	8
	Flauto Basso	8
7.	Quinta decima	4
8.	Flagioletta Soprano	16
9.	Decima nona	3
10.	Vigesima seconda	2
11.	Vigesima sesta e nona	
12.	Trigesima terza e sesta	
13.	Cornetto Soprano, di cinque	
14.	Corno Inglese Soprano	32
15.	Oboe Soprano	16
	Violoncello Basso (a reed)	16
16.	Voce Umana Soprano	16
17.	Tromba armoniche Basso	8

SWELL ORGAN.

CCC, short, to F in alt.

1.	Principale Soprano	16
	Ditto Basso	16
2.	Flauto in ottava	8
3.	Ripieno di cinque	
4.	Corno dolce Soprano	32
5.	Corno Bassetto Soprano	32
6.	Voce Umana Soprano	16
7.	Fagottone Basso	16

PEDAL ORGAN.

CCC, short, to Tenor D.

1.	Contra Bassi con rinforzi,	32 & 16
2.	Contra Bassi dolce (stopped)	16
3.	Bombardone	16
4.	Tromboni	8

ACCESSORY STOPS, ETC.

1. Choir to Great
2. Swell to ditto
3. Great to Pedal

4 & 5. Octave & Double Couplers

6, 7, & 8. Three Composition Pedals

9. Drums

Church of St. Gætano, Florence.

The organ in the Church of St. Gætano, at Florence, contains the following stops:

GREAT ORGAN.

CC, short, to C in alt.

		FEET.
1.	Principale Soprano	8
	Ditto Basso	8
2.	Ottava	4
3.	Flauto	4
4.	Nasardo	3
5.	Decima quinta	2

		FEET.
6.	Flautino, Soprano e Basso	2
7.	Decima nona	1½
8.	Vigesima seconda	1
9.	Ripieno di tre	
10.	Cornetto di tre	
11.	Cornettino di tre	
12.	Tromba, Soprano	8
	Ditto, Basso	8
13.	Voce Umana	8
14.	Clarone	4

CHOIR ORGAN.

CC, short, to C in alt.

		FEET.
1.	Corno Dolce, Soprano	16
2.	Principale, Soprano	8
	Ditto, Basso	8
3.	Voce Angelica	8
4.	Flautone.....metal	8
5.	Ottava	4
6.	Flauto	4
7.	Flautino	2
8.	Corno Inglese, Soprano	16
9.	Tromba, Basso e Soprano	8
10.	Oboe, Soprano	8
11.	Voce Umana, Soprano	8

ECHO ORGAN.

CC, short, to C in alt.

		FEET.
1.	Principale	8
2.	Ottava	4
3.	Flauto	4
4.	Nasardo	3
5.	Decima quinta	2
6.	Ripieno di quattro	
7.	Cornettino di tre	
8.	Tromba	8

PEDAL.

		FEET.
1.	Rinforza de Contra-bassi, open, wood	16

ACCESSORY STOPS, ETC.

1. Choir to Great
2. Echo to ditto
3. Great Octave Coupler
4. Great Sub Octave Coupler
5. Great to Pedal
   Three Composition Pedals

Carigrana Church, Genoa.

The organ in the Carigrana Church, at Genoa, was built by Hermann. It contains the following stops:

GREAT ORGAN.

CCC, short, to C in alt.

1. Contra-basso, Soprano e Basso
2. Contra-basso, Soprano
3. Principale Soprano, 1mo
   Ditto Basso, 1mo
4. Principale Soprano, 2ndo
   Ditto, Basso, 2ndo
5. Principale Soprano, 3zo
6. Flauto Traverso, Sop. e Basso
7. Flauto Tedesco, ditto ditto
8. Ottava Soprano, 1mo
   Ditto Basso
9. Ottava Soprano, 2ndo
10. Flautino
11. Duodecima
12. Decima quinta
13. Ottavini, Soprano e Basso
14. Decima nona
15. Vigesima seconda
16. Ditto nona
17. Trigesima sesta
18. Sesquialtera di quattro
19. Repieno di cinque
20. Cornetto di quattro
21. Cornetto di tre
22. Tromba Soprano
    Trombone Basso
23. Tromba Real, Soprano
    Fagotto Basso
24. Voce Umana (a reed)
25. Corna Musa, Soprano

CHOIR ORGAN.

CCC, short, to C in alt.

1. Principale
2. Flautone
3. Ottava
4. Ripieno di cinque
5. Vox Pueri, Soprano
   Vox Tauri, Basso

ECHO ORGAN.
CC to C in alt.

1. Principale
2. Corno dolce, Soprano
3. Ottava
4. Ripieno, di quattro
5. Oboe, Soprano
6. Tromba, Soprano

PEDAL ORGAN.
CCC, short, to Tenor D.

FEET.
1. Contra Basso, al La (to AAA) 32
2. Principale..... 16
3. Contra Basso .....
4. Principale.....
5. Tromba.....
6. Clarone .....

ACCESSORY STOPS, ETC.
1. Coupler, uniting all the Man
2. Ditto, Great to Pedals
Three Composition Pedals
Bells on Choir Manual
Two Bird Stops in Echo Manual
Thunder by means of a Pe
Drum by ditto ditt

Milan Cathedral.

In Milan Cathedral there are two organs, one on e side the choir, both of which are exceedingly effective, suit admirably the noble building in which they are pla Neither of them contain any reed stops, stops of that na being expressly forbidden by the Ambrosian rite. I instruments were made by the brothers Serassi, of Berga The organ that stands on the north side of the choir, wl was completed in 1842, has one manual, a pedal organ, contains the following stops:

MANUAL.
FFF to F in alt. complete.

1. Doppio nè Soprani, di 24 Piedi / Contra Basso, di 24 Piedi
2. Principale 1mo Soprano / Ditto, 1mo Basso
3. Principale 2ndo Soprano / Ditto 2ndo Bass
4. Ditto 3zo Soprano
5. Violone, Soprano / Violone, Basso
6. Flautone, Soprano / Ditto Basso
7. Flauto Tedesca
8. Ottava 1mo Saprano / Ditto 1mo Basso
9. Ottava 2ndo Soprano / Ditto 2ndo Basso
10. Ottava 3zo Soprano
11. Viola, Soprano / Violoncello, Basso
12. Flauto Traverso
13. Duodecimo
14. Decima quinta 1mo
15. Decima quinta 2ndo
16. Flautino
17. Decima nona, e vigesima seconda
18. Decima nona, e vigesima seconda
19. Vigesima sesta, e vigesim nona
20. Vigesima quarto, e decim settima
21. Trigesima terza, e trigesi sesta
22. Trigesima prima, e trigesi sesta

23. Ripieno di quattro (mixture, 4 ranks)
24. Ripieno di tre (mixture, 3 ranks)
25. Cornetto, Soprano, a cinque (cornet, 5 ranks
26. Cornettino, Soprano, a quattro (small cornet, 5 ranks)
27. Corno dolce, Soprano (soft horn)
28. Voce Humana, Soprano (not a reed)

PEDAL ORGAN.
FFF to Tenor C, complete.

		FEET.
1.	Contra Basso	24
2.	Basso profondo	24
3.	Ottava	12
4.	Principale	12

ACCESSORY STOPS, ETC.

1. Terzo Mano (3rd octave coupler)
2. Pedali armonichi (pedal coupler)
3. Trembiant
Two Composition Pedals

Church of St. Allessandro, Milan.

The organ in the Church of St. Allessandro, at Milan, has the following stops:

GREAT ORGAN.
CCC to C in alt. 6 complete 8ves.

		FEET.
1.	Principale, Soprano 1mo	32
	Ditto, Basso 1mo	32
2.	Principale, Sop. e Basso 2ndo	32
3.	Violone Basso, al CC	32
4.	Principale, Sop. 1mo	16
	Ditto, Basso 1mo	16
5.	Ditto, Sop. 2ndo	16
	Ditto, Basso 2ndo	16
6.	Viola Soprano	16
	Ditto Basso	16
7.	Corno Flauto	16
8.	Ottava, Sop. 1mo	8
	Ditto, Basso 1mo	8
9.	Ottava Soprano e Basso	8
10.	Flauto Soprano	8
	Ditto Basso	8
11.	Violino Soprano	8
	Basso Viola	8
12.	Quinta, decima 1mo	4
13.	Ditto, ditto 2ndo	4
14.	Decima nona	3
15.	Ottavino	2
16.	Ripieno di due	
17.	Ripieno di quattro	
18	Ripieno di tre	
19.	Ripieno di quattro	
20.	Corno Inglese	32
21.	Tromba Soprano	16
	Ditto Basso	16
22.	Clarinetto Soprano	16
	Fagotto Basso	16
23.	Tromba allemano Basso	16
24.	Ditto armoniche	8

SWELL ORGAN.
CC to C in alt. 5 complete 8ves.

		FEET.
1.	Principale, Soprano	16
	Ditto, Basso	16
2.	Voce flebile, Sop. 1mo	16
	Ditto ditto, Basso	16
3.	Voce flebile, Sop. 2nda	16
4.	Violetta, Sop. 1mo	16
	Violoncello, Basso	16
5.	Violetta, Sop. 2ndo	16
6.	Ottava	8
7.	Flauto, Traverso, Sop.	8
8.	Viola Basso	8
9.	Decima quinta	4
10.	Decima nona	3
11.	Vigesima 2ndo	2
12.	Vigesima sesta e nona	
13.	Clarinetto, Soprano	16
14.	Fagottone, Basso	32
15.	Clarone, Basso	8

PEDAL ORGAN.
CCC to Tenor C, 2 complete 8ves.

1.	Violone profondo	32
2.	Contra-bassi e rinforzi	16
3.	Violoncello a lingur in la	16
4.	Bassi armonichi e duodecima	

	FEET.
5. Principali e ottava	8 & 4
6. Ripieno a tre	8, 6, & 4
7. Bombardi	16
8. Tromboni	8
9. Corni da caccia	4
10. Tympani	

ACCESSORY STOPS, ETC.

1. Coupler, Swell to Great
2. Ditto, Great to Pedal
3. Seraphine, or Fisarmonica on a separate wind
4. Thunder Pedal
5. Drums

Three Composition Pedals

St. Peter's, at Rome.

In the Church of St. Peter, at Rome, there are four organs. The largest one of the number was originally built about 160 years since; but has recently been reconstructed and enlarged by Priori, an organ-builder at Rome. It contains the following stops:

GREAT ORGAN.

CCC, short, to F in alt.

1. Principale doppio, Sop. e Basso
2. Ditto 1mo Soprano / Ditto 1mo Basso
3. Ditto 2ndo Soprano / Ditto 2ndo Basso
4. Principale 3zo Soprano
5. Flauto Traverso, Sop. e Basso
6. Flauto Tedesca, Soprano
7. Ottava Soprano / Ditto Basso
8. Duodecima
9. Decima quinta
10. Ottavini, Basso e Soprano
11. Decima nona
12. Vigesima seconda
13. Ditto nona
14. Ripieno di quattro
15. Cornetto Soprano, di cinque
16. Tromba Soprano / Trombone Basso
17. Corno Inglese / Fagotto, Basso

SWELL ORGAN.

CCC, short, to F in alt.

1. Principale, Soprano / Ditto, Basso
2. Ottava
3. Decima quinta
4. Ripieur di cinque
5. Oboe, Soprano
6. Tromba, Soprano / Corno, Basso

PEDAL ORGAN.

CCC, short, to Tenor C.

	FEET.
1. Contra-basso	16
2. Principale	16
3. Ditto	8
4. Reinforza a lingue (free reed, without tubes), 16 feet tone	

ACCESSORY STOPS, ETC.

1. Swell to Great
2. Great to Pedal
3. Swell to ditto

4 & 5. Octave and Sub Octave on Great Manual

Three Composition Pedals

Drum Pedal

Cathedral, Kronstadt.

The fine organ in the Cathedral Church, at Kronstadt, was built from the plans of C. Buckholz, of Berlin, in

1889. It contains 9 large pairs of bellows, and the following stops:

GREAT ORGAN.
CC to G in alt. 56 Notes.

	FEET.
1. Principal	16
2. Quintaton, 16 feet tone	
3. Principal	8
4. Rohrflote, 8 feet tone	
5. Gemshörn	8
6. Viola di Gamba	8
7. Nassat	5⅓
8. Octave	4
9. Spitzflote	4
10. Waldflote	4
11. Quint	2⅔
12. Super Octave	2
13. Cornet, 5 ranks	
14. Sharf, 5 ranks	
15. Cymbel, 5 ranks	

ECHO ORGAN.
CC to G in alt. 56 Notes.

1. Bourdon, 16 feet tone	
2. Principal	8
3. Gedact, 8 feet tone	
4. Salicional	8
5. Hohlflote	8
6. Quintaton, 8 feet tone	
7. Octave	4
8. Rohrflote, 4 feet tone	
9. Fugara	4
10. Nasat	2⅔
11. Super Octave, 2 ranks	2
12. Mixture, 5 ranks	
13. Hautbois	8

CHOIR ORGAN.
CC to G in alt. 56 Notes.

1. Salicional	16
2. Principal	8
3. Gedact, 8 feet tone	
4. Viol di Gamba	8
5. Flauto Traverso	8
6. Octave	4
7. Viol d'Amour	4
8. Flauto Dolce	4
9. Gemshorn Quinta	2⅔
10. Decima Quinta	2
11. Progressio Harmonica, 3 & 5 ranks	

REED-WORK MANUAL.
CC to G in alt. 56 Notes.

1. Fagotto	16
2. Trompette	8
3. Clarionetto	8
4. Vox Angelica	8
5. Rohrflote, 8 feet tone	
6. Violino	8
7. Principal	4
Nos. 5, 6, and 7, Lip Stops	

PEDAL ORGAN.
CCC to Fiddle G, 32 Notes.

1. Principal	32
2. Untersatz, 32 feet tone	
3. Principal	16
4. Sub Bass, 16 feet tone	
5. Violone	16
6. Nassat	10⅔
7. Principal	8
8. Bass Flote, 8 feet tone	
9. Violone	8
10. Gemshorn	8
11. Quinte	5⅓
12. Octave	4
13. Mixture, 4 ranks	
14. Contra Posaune	32
15. Posaune	16
16. Trompette	8
17. Cornette	4

ACCESSORY STOPS, ETC.
Three Manual Couplers
One Pedal Coupler
Five Wind-trunk Valves

Cathedral, Seville.

There are several organs in the Cathedral, at Seville, the two principal of which stand, sideways, one on each side the choir, and opposite each other. Each of these has a complete and beautifully adorned front, both behind us

well as before; and also a handsome "choir organ in f
not only towards the choir, but also another towar
aisle. The reed stops, which are unexampled for
number, are placed outside the organs, and project
zontally from the several points, in 2, 3, and 4 tiers.
largest pipes are uppermost, and are supported by
bars. The mouths of the tubes are trumpet-shaped.

The older of the two chief organs, the account of
we now give, is the largest. According to most acc
this has 110 stops, and 5,300 pipes. It is evident, hov
that many of the stops are only "half-stops." By no
means could such an aggregation of stops be accoun
comprise a number of pipes inferior to that contain
the Rotterdam, Weingarten, and some other organs,
have at the same time 30 or 40 stops less than the S
organ. Still less could it otherwise be explained how
can be *two* "first" mixtures, *two* "second" mixtures,
so forth. The figures 13, 26, and 52, attached to c
stops, seem to correspond with the signs, 8, 16, 32, i
German tablature, in marking the size of the large fo
tion stops. The mode of blowing the bellows of this
organ is peculiar. Instead of working with his han
man walks backwards and forwards along an inc
plane of about 15 feet in length, which is balanc
the middle on its own axis. Under each end is a p
bellows, of about 6 feet by 3½ feet. These commu
with five other pair, united by a bar; and the latter
contrived that, when they are in danger of being
strained, a valve is lifted up and gives them relief. Pa
ten times along the inclined plane fills all these ve
which are so ample that, when stretched, they suppl
full organ fifteen minutes. The following is a list o
stops, &c. of the largest organ, with a translation:

GREAT ORGAN.

CC to G in alt.

1.	Flauto de 26	Double Diapason ... Treble
	Ditto ditto	Ditto ditto ... Bass
2.	Flauto de 26	Ditto ditto ... Treble
3.	Violon de 26	Gamba Major, or Double Gamba ... Treble
	Ditto ditto	Ditto ditto, ditto ditto ... Bass
4.	Tolosana de 26	Double stop; probably either invented or first made at Tolouse, and hence named after that place.
	Ditto ditto	
5	Baxoncillo*	Open Diapason ... Treble
	Ditto	Ditto ditto ... Bass
6.	Ditto	Ditto ditto ... Treble
	Ditto	Ditto ditto ... Bass
7.	Ditto	Ditto ditto ... Treble
8.	Tapadillo	Stopped Diapason ... Ditto
	Ditto	Ditto ditto ... Bass
9.	Ditto	Ditto ditto ... Treble
10.	Flauta de 13	Unison Flute ... Ditto
	Ditto ditto	Ditto ditto ... Bass
11.	Ditto ditto	Ditto ditto ... Treble
12.	Flauta Traversa	German Flute ... Ditto
13.	Violon de 13	Gamba ... Ditto
	Ditto ditto	Ditto ... Bass
14.	Ditto ditto	Ditto ... Treble
15.	Tolosana	Unison Stop (*see* No. 4)
16.	Docena de 26	Twelfth to the 26 feet stops; Fifth to the 13 feet stops, Quint
17.	Octava	Octave, or Principal ... Treble
	Ditto	Principal ... Bass
18	Ditto	Ditto
19.	Docen y 26mo	Twelfth and 26th (Octave Larigot)
20.	Quincena	Fifteenth
21.	Lleno 1mo	First Mixture ... Treble
	Ditto	Ditto ditto ... Bass
22.	Lleno 2do	Second Mixture ... Treble
	Ditto	Ditto ditto ... Bass
23.	Ditto	Mixture
24.	Corneta	Cornet
25.	Ditto	Ditto
26.	Trompa de 52	Double Double Trumpet
27.	Trompa de 26	Double Trumpet ... Treble
	Ditto ditto	Ditto ditto ... Bass
28.	Trompa Real	Royal, or Grand Trumpet ... Treble
	Ditto ditto	Ditto ditto ... Bass
29.	Ditto ditto	Ditto ditto ... Treble
	Ditto ditto	Ditto ditto ... Bass

* "Baxon" is a Bassoon, and "illo" implies a diminution; but the Baxoncillo stop is known to be the equivalent to the English Open Diapason.

30. { Trompa de Batalla .....Battle Trumpet.....Treble
{ Trompa Magna.....Great Trumpet .....Bass
31. Trompa 8 .....Octave Trumpet
32. { Oboe .....Hautboy
{ Fagot .....Bassoon
33. Cremona.....Cremona
34. Vox de 13 .....Vox Humana
35. { Viejos.....“Viejos,” the eyebrows.*
{ Ditto
36. { Clarin Real .....Royal, or Grand Clarion.....Treble
{ Ditto .....Ditto ditto .....Bass
37. Ditto.....Ditto ditto
38. { Clarin de Batalla.....Battle Clarion .....Treble
{ Ditto ditto.....Ditto ditto .....Bass
39. Clarin Claro .....Clear Clarion
40. { Clarin en 15 .....Octave Clarion .....Treble
{ Ditto ditto .....Ditto ditto .....Bass
41. Ditto ditto .....Ditto ditto
42. Orlo.....Orlo, a Shawm; the “Cink” of Dutch and “Zincke” of German Organs.†

FORTE DE ECHO.

CC to G in alt.

43. Baxoncillo .....Open Diapason
44. Tapadillo .....Stopped Diapason
45. Flauta Traverso .....German Flute
46. Flauta.....Flute
47. Corneta .....Cornet
48. { Trompa Real.....Grand Trumpet
{ Trompa Magna.....Great Trumpet
49. Trompa Bastarda .....“Bastarda,” a piece of ordance; Bombarde, or Great Reed, probably a Double Trumpet
50. Vox Contralto .....Contralto Voice
51. { Oboe .....Hautboy
{ Fagot .....Bassoon
52. Clarin Sordina .....Soft Clarion

ECHO.

CC to G in alt.

53. Baxoncillo .....Open Diapason
54. Tapadillo .....Stopped Diapason
55. Violon de 13 .....Gamba
56. Tolosana .....Unison Stop
57. Flauta Traverso .....German Flute
58. Flauta de 13 e 8va .....Flute, of Octave as well as Unison pitch.
59. Docena .....Twelfth
60. Quincena .....Fifteenth
61. Lleno .....Mixture
62. Corneta .....Cornet

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* This stop takes its name from the shape of the cover or plug at the top of the pipe.

† The original instrument exists only in the German saying, “in Heaven the Angels only play Fiddles and Shawms.”

63. { Trompa Real.....Royal Trumpet
Trompa Magna.. .....Great Trumpet
64. { Vox de 13 .....Vox Humana
Vox Contralto .....Contralto Voice

CONTRA PEDALE.
One Octave.

65. Trompa de 26.....Trumpet of 26 feet
66. Ditto ditto..... .....Ditto ditto
67. Trompa de 13.....Trumpet of 13 feet
68. Trompa de Octave .....Octave Trumpet (6½ feet)
69. Trompa de 12.....Twelfth Trumpet (4½ feet)
70. Trompa en 15.....Fifteenth Trumpet (3½ feet)
71. Trompa en 17.....Tierce Trumpet

The above organ has several more stops, the names of which are not on the stop handles. These are probably couplers, wind valves, and other accessory stops.

NUMBER OF STOPS.

	STOPS.	DRAW STOPS.
Great	42	62
Forte de Echo	10	12
Echo	12	12
Pedal	7	7
Couplers		15
Wind Valves, &c.		
Total Number of Stops...	71	Draw Stops... 110

Cathedral Church, at Lund, in Sweden.

The large and fine organ in the Cathedral Church at Lund, in Sweden, was built by Peter Zacharius Strand. It has 12 pairs of bellows, 6 of which supply wind to the manuals, and 6 to the pedals. The lower keys are of ivory, inlaid with gold, and the upper keys of ebony. The list of stops is as follows:

FIRST MANUAL.

	FEET.
1. Principal, tin	16
2. Doppel Borduna, pine and maple wood	16
3. Principal, tin	8
4. Vox Retusa, tin	8
5. Spitzflöte, wood to B, the rest metal	8
6. Octave, tin	4
7. Gedakt Quinte, tin	6
8. Spitzflöte, tin	4
9. Gedakt Quinte	3
10. Octave, tin	2
11. Scharf, or Mixture, 3 ranks, tin	
12. Trompete, tin	16
13. Trompete, tin	8

SECOND MANUAL. FEET.

1. Principal, tin 16
2. Fugara, C to B wood, the rest metal
3. Borduna, C to B wood, the rest metal 16
4. Octave, tin 8
5. Flauto Cuspido, metal 8
6. Salcional Piffaro, tin..... 8
7. Gedaktflöte, C to B wood, the rest metal 8
8. Octave, tin 4
9. Hohlflöte, metal..... 4
10. Spitz Quinte, tin..... 3
11. Octave, tin 2
12. Corno, large scale, strong intonation 8

THIRD MANUAL, UPPER WORK.

1. Principal, tin 8
2. Borduna, C to B wood, the rest metal 16
3. Corno di Basetto, tin..... 8
4. Vox Vino Lata, metal, pyramidal, weak intonation, and small scale 8
5. Flauto Fistulo, C to B wood, the rest metal..... 8
6. Octave, tin 4
7. Rohrquinte, tin 3
8. Flöte, metal..... 4
9. Flauto di Pan, tin 2
10. Trompete, tin 8
11. Waldhorn, 24 notes of brass, with tongues of German silver (Neusilber) 8
12. Clarinette, tin..... 8

ECHO WORK.

FEET.

1. Principal, tin 8
2. Doppel Gedakt, maple wood 8
3. Harmonik, oak and maple
4. Octave, tin 4
5. Flauto, tin, open..... 2
6. Kurzflöte, metal 4
7. Viola di Gamba, tin 8
8. { Vox Humana, tin, treble 8 / Fagott, tin, bass 8
9. Cornett, 3 ranks

PEDAL.

1. Principal Bass, wood, with double mouths 16
2. Sub Bass, wood, with double mouths..... 16
3. Principal, tin 8
4. Flauto Doppio, wood 8
5. Octave 4
6. Flauto di Pan, tin 1
7. Cornettin, tin 4
8. Trombone, tin..... 16
9. Trompete, tin 8
10. Violone, wood 16
11. Violoncello, wood 8
12. Quinte, oak wood 12
13. Octave, tin 4
14. Contraposaune, wood 32
15. Sub Bass, wood, with double mouths 32

Church of St. Nicholas, Freiburg, in Switzerland.

The original organ placed in the Church of St. Nicholas, at Freiburg, was built by Conrad Waldshut, and erected in 1426. It was constructed for the price of 500 German florins. This sum, which must have been more considerable than in our own days, considering the high price of money, was furnished by the voluntary gifts of the citizens, as the public generously contributed to the establishment of the second organ. In spite of the decayed state of the first

instrument, which, according to Mooser's prediction, was in great danger of falling to pieces, they were far from looking to him to substitute another, when, in July 1818, during a violent storm, the old organ was struck by lightning, and so much damaged that a great number of the pipes melted, and so all repairs became impossible. It was thought now of building it anew, and thus Mooser owed to a most extraordinary circumstance his being able, before dying, to reveal the whole extent of his genius. Thus the church possesses an organ which could dispute in celebrity with any of the most reputed organs of Europe. This particularly fine organ was finished by Aloise Mooser, at the expiration of eight years labour, and erected in the church in 1834.

There are 4,168 pipes (3,910 of which are of fine English tin), and 61 sounding stops. The draw stops do not act in the usual way, but slide to the right and left. The registers are also classed by means of different colours. Thus the first 6 stops, commencing on the left hand, are of a different colour from the following 6, and so on.*

There are 12 pairs of bellows, 8 feet 9 inches in length, and 4 feet 5 inches in width, and 7 feet from each other.

The case is of dark walnut-tree wood, richly ornamented with carved work, gilded. The Voix Humaine in the echo organ is a singularly beautiful stop, and faithfully imitates the human voice. It is said that the King of France, some years back, applied to Mooser to build him a similar organ; but he declined, saying that he was too old to build another, and he wished his own city to possess the only instrument of the kind in the world.

* The registers of the different stops are distinguished from each other by inscriptions on a gilt-edged groundwork, sometimes green and sometimes red.

This celebrated organ contains the following stops:

CLAVIER DE L'ECHO.
(Upper Manual.)
CC to F in alt. 54 Notes.

	FEET.
1. Montre	8
2. Bourdon	8
3. Flageolet	2
4. Quinte Flute	4
5. Flute	8
6. Salicional	8
7. Cornet	8
8. Voix Humaine	8

CLAVIER DU GRAND POSITIF.
(Second Manual.)
CC to F in alt. 54 Notes.

1. Quintadène	16
2. Second Principal	8
3. Cornet	8
4. Octave	4
5. Nazard	3
6. Fourniture	2
7. Trompette	8
8. Principal	8
9. Flute Douce	8
10. Gambe	8
11. Flute	4
12. Flute à Cheminée	4
13. Doublette	2
14. Flageolet	1

CLAVIER DU GRAND ORGUE.
(Third Manual.)
CC to F in alt. 54 Notes.

1. Montre	16
2. Octave	8
3. Bourdon	16
4. Gambe	8
5. Duliciane	4
6. Doublette	2
7. Cymbale	2
8. Trombone	8
9. Copule	
10. Principale	8
11. Grand Cornet	16
12. Bourdon	8
13. Prestant	4
14. Petite Cornet	3
15. Fourniture	2
16. Sharf	2
17. Clairon	4
18. Tremblant de l'Echo	

CLAVIER DU PETIT POSITIF.
(Fourth Manual.)
CC to F in alt. 54 Notes.

	FEET.
1. Bourdon	8
2. Salicional	8
3. Calcan	4
4. Quinte Flute	4
5. Cornet	8
6. Cromorne	4
7. Tremblant	
8. Montre	8
9. Viole	8
10. Prestant	4
11. Dulciane	4
12. Flute Bouchée	4
13. Flageolet	2

GRANDE PEDALE.
CCC to Tenor C.

1. Trombone	8
2. Bombarde	16
3. Prestant	4
4. Octave	8
5. Sous Basse	16
6. Bas Bourdon	32

PETITE PEDALE.
CCC to Tenor C, 25 Notes.

1. Trompette	8
2. Prestant	4
3. Principal	8
4. Montre	16
5. Flute	8

NUMBER OF PIPES.

Clavier de l'Echo	594
Ditto du Grand Positif	972
Ditto du Grand Orgue	1512
Ditto du Petit Positif	810
Pedale	275
Total Number of Pipes...	4163

NUMBER OF STOPS.

Echo Organ	8
Grand Positif	14
Ditto Organ	18
Petit Positif	13
Pedale	11
Total Number of Stops...	64

Cathedral Church, St. Pierre, Geneva.

The organ in the Cathedral Church of St. Pierre, at Geneva, was built by Gerger, about 160 years ago. It has the following stops:

GREAT ORGAN.
CC to D in alt.

	FEET.
1. Montre	16
2. Grand Bourdon, 16 ft. tone	
3. Huit Pieds Ouverte	8
4. Principal	8
5. Flute	8
6. Bourdon, 8 feet tone	
7. Prestant	4
8. Nazard	3
9. Quarte de Nazard	2
10. Doublette	2
11. Tierce	1⅗
12. Cymballe	
13. Fourniture	
14. Cornette, 5 ranks	
15. Trompette de dessus	8
Ditto de bassus	8
16. Clairon	4
17. Voix Humaine, 8 feet tone	

CHOIR ORGAN.
CC to D in alt.

1. Bourdon, 8 feet tone	
2. Prestant	4
3. Flute	4
4. Doublette	2
5. Tierce	1⅗
6. Cymballe	
7. Fourniture	
8. Cornette	
9. Trompette	8
10. Cromhorn, 8 feet tone	

ECHO ORGAN.
Middle C to D in alt.

	FEET
1. Bourdon, 8 feet tone	
2. Prestant	4
3. Flute	4
4. Cornette, 3 ranks	
5. Trompette	8
6. Cromhorn, 8 feet tone	

ORGUE DE RECIT.
Fiddle G to D in alt.

1. Bourdon, 8 feet tone	
2. Flute Allemande	8
3. Prestant	4
4. Doublette	2
5. Cornette, 4 ranks	
6. Trompette	8

PEDAL ORGAN.
CCC to Tenor C.

1. Sixteen Pieds ouverte to GG	16
2. Bourdon, 16 feet tone	
3. Huit Pieds ouverte	8
4. Bombarde	16
5. Trompette	8
6. Clairon	4

ACCESSORY STOPS, ETC.

1. Choir to Great
2. Great to Pedals

Cathedral Church, Gersau, Switzerland.

The organ in the Cathedral at Gersau, Switzerland, was built by Aloise Mooser, the builder of the celebrated organ at Freiburg. The full organ is exceedingly fine. It has the following stops:

LA GRAND ORGUE.
(Great Organ.)
Compass, from CC to F in alt.

	FEET.
1. Principal	16
2. Ditto	8
3. Copel	8
4. Gamba-douce	8
5. Waldflaut	4
6. Octave	4
7. Dulciana	8
8. Quint	2⅔
9. Octave	2
10. Cornet, 3 ranks	
11. Mixture, 4 ranks	1⅓
12. Fagot	16
13. Trompette	8
14. Fagot	8

LE PETITE ORGUE.
(Choir Organ.)
CC to F in alt.

	FEET.
1. Rohrflaut, 8 feet tone	
2. Copel	8
3. Flaute	4
4. Quint	2⅔
5. Octave	2
6. Flageolet	2
7. Mixture, 3 ranks	
8. Gamba	8

PEDAL ORGAN.
Two Octaves, CCC to Tenor C.

1. Sub-bass, 32 feet tone	
2. Octave-bass	16
3. Principal	8
4. Quint	5⅓
5. Octave	4
6. Mixture, 4 ranks	
7. Bombarde	16
8. Trompette	8
Coupler, Choir to Great	

Soleure Cathedral.

The organ in the Cathedral at Soleure, in Switzerland, was made by Bossart de Zug, in 1790, and is remarkable for being without "double" stops on the manuals. The following is a list of its stops:

GREAT ORGAN.
CC to D in alt.

	FEET.
1. Principal	8
2. Bourdon, 8 feet tone	
3. Gamba	8
4. Copel	8
5. Flauta	8
6. Octava	4
7. Flauttons	4
8. Quinta	2⅔
9. Super Octave	2
10. Tertia	1⅗
11. Lar got	1⅓
12. Flageo'et	1
13. Sesquialtera	
14. Mixture	
15. Fourniture	
16. Tromba	8

CHOIR ORGAN.
CC to D in alt.

	FEET.
1. Principal	8
2. Copel	8
3. Octava	4
4. Quinta	2⅔
5. Super Octava	2
6. Mixtur	
7. Cornet	
8. Vox Humana, 8 feet tone	

ECHO ORGAN.
CC to D in alt.

	FEET.
1. Principal	8
2. Copel	8
3. Flaut	4
4. Nassat	2⅔
5. Mixture	
6. Cornet	
7. Fagott	8

PEDAL ORGAN.
CCC to Gamut A.

	FEET.
1. Sub-bass	16
2. Bordon, 16 feet tone	
3. Principal	8
4. Quinta	5⅓
5. Octava	4
6. Mixture, 3 ranks	
7. Bombarde	16
8. Tromba	8

ACCESSORY STOPS, ETC.
1. Choir to Great
2. Tremulant to Choir

Winterthur Church, near Zurich.

The organ in the principal church at Winterthur, near Zurich, was built partly by Hasse, and partly by Mooser of Freiburg. In the pedal organ is a very fine 32 feet sub-bass stop, of wood. The following is a list of its contents:

GREAT ORGAN.
CC to F in alt. 54 Notes.

	FEET.
1. Principal	16
2. Bourdon, 16 feet tone	
3. Octave	8
4. Bourdon, 8 feet tone	
5. Viol di Gamba	8
6. Flote, dopp. lab.	8
7. Quint Flote, 5⅓ feet tone	
8. Octave	4
9. Fugara	4
10. Quinte	2⅔
11. Waldflote	2
12. Mixture, 5 ranks	
13. Cornet, 5 ranks	
14. Trumpet	8

CHOIR ORGAN.
CC to F in alt. 54 Notes.

1. Bourdon, 16 feet tone	
2. Principal	8
3. Viol di Gamba	8
4. Bourdon, 8 feet tone	
5. Dolce	8
6. Gemshorn	4
7. Rohrflote, 4 feet tone	
8. Flauto Traverso	4
9. Octave	2
10. Mixture, 4 ranks	
11. { Clarionet, Treble / Bassoon, Bass }	8

SWELL ORGAN.
CC to F in alt. 54 Notes.

	FEET.
1. Principal	8
2. Lieblich Gedact, 8 ft. tone	
3. Harmonica	8
4. Salicional	8
5. Lieblich Flote, 8 feet tone	
6. Spitzflote	4
7. Flauto d'Amore	4
8. Flautino	2
9. Physarmonica, free reeds	8
10. Vox Humana, 8 feet tone	

PEDAL ORGAN.
CCC to Tenor C, 25 Notes.

1. Sub bass ....wood	32
2. Octave Bass ....ditto	16
3. Sub bass, wood, 16 ft. tone	
4. Octave Bass ....metal	8
5. Flote Bass, wood, 8 ft. tone	
6. Violoncello	8
7. Octave	4
8. Posaune	16
9. Trompete	8

ACCESSORY STOPS, ETC.
1. Choir to Great
2. Swell to Choir
3. Great to Pedals
4. Choir to Ditto
5. Tremulant to Swell

Three Wind-trunk Valves
Two Composition Pedals.

ADDENDA TO THE LIST OF ORGANS.

The additions, alterations, and corrections in the following organs, arrived too late to be inserted in their proper places.

Bombay Cathedral.

(See page 220.)

GREAT ORGAN.

No. 9. Sesquialtera has 3 & 4 ranks

SWELL ORGAN.

No. 1. For *Double Diapason* read *Lieblich Gedact*, 16 feet

NUMBER OF PIPES.	
Great Organ	640
Choir Organ	368
Swell Organ	392
Pedal Organ	145
Total Number of Pipes...	1545

There are two large pairs of bellows, with different pressure of wind. The whole of the interior wood-work of the organ is of hard mahogany, to suit the climate of India; and the metal pipes of spotted metal. Every means has been adopted to render the organ safe from the attacks of the white ant.

The organ has two fronts, one towards the choir, and the other to the aisle. The case is of massive oak, with a superstructure of ironwork, enriched with copper and brass.

Peterborough Cathedral.

(See page 80.)

To great organ, add:

No. 10. Trumpet Treble
No. 11. Ditto Bass

In 1848, Holdich extended the swell to gamut G, from tenor F. He also added the hautboy in the swell, the pedal pipes, all the couplers and composition pedals, and a new bellows.

Rochester Cathedral.

(See page 81.)

During the last few months this beautifully toned instrument has been undergoing some extensive and very important alterations. The work has been entrusted to the firm of Hill and Son, one of the most eminent of our organ builders at the present time, and has been divided into two portions, the first of which comprises the extension of the swell organ downwards to CC, the addition of three new stops to this department, and the same number to the choir organ, two extra couplers, a tremulant, two composition pedals to the swell, and new draw stop action to the swell and choir organs. Thus far the work has now been completed. The great organ remains unaltered, owing to the want of space, excepting that an octave of pipes has been added to the clarabella for the purpose of carrying it down to tenor C as a 4 feet flute. The second portion of the plan (which is now to be proceeded with) has reference almost exclusively to the pedal organ. This department has been hitherto misrepresented by rather less than the half of one stop, called "pedal pipes":—a contrivance which furnishes a few pipes to the middle part of a pedal board, the keys of which extend both upwards and downwards beyond the range of the pipes themselves. This very defective arrangement is, however, about to be remedied by the introduction of an adequate pedal organ, consisting of at least five stops, with the full compass of two octaves and a half. The instrument will then contain the following stops: those marked with an asterisk being entirely new; and those contemplated, but not yet carried out, with a dagger:*

* Since the above was written, the Editor has been informed that a new bellows has been added.

GREAT ORGAN.
GG to F in alt. 59 Notes.

	FEET.
1. Open Diapason	8
2. Ditto ditto	8
3. Stopped Diapason, 8 ft. tone	
4. Principal	4
5. Flute (Tenor C)	4
6. Twelfth	2⅔
7. Fifteenth	2
8. Sesquialtra, 3 ranks	
9. Mixture, 2 ranks	
10. Trumpet	8

CHOIR ORGAN.
GG to F in alt. 59 Notes.

1. Dulciana	8
2. Stopped Diapason, 8 ft. tone	
†3. Gamba	8
4. Principal	4
*5. Wald Flute (CC)	4
6. Fifteenth	2
*7. Clarionet (CC), 8 feet tone	

SWELL ORGAN.
CC to F in alt. 54 Notes.

*1. Bourdon	16
2. Open Diapason	8
3. Stopped Diapason, metal, 8 feet tone	
4. Dulciana (gamut G)	8
5. Principal	4
6. Dulciana Principal	4
7. Cornet, 3 ranks	
*8. Dulciana Mixture, 4 ranks	
*9. Horn	8
10. Hautboy	8
11. Clarion	4

PEDAL ORGAN.
CCC to F. 30 Notes.

†1. Sub-bass (GGG), 32 ft. tone	
2. Open Diapason	16
†3. Violone	16
†4. Principal, or Violoncello	8
†5. Posaune	16

ACCESSORY STOPS, ETC.

Swell to Great
*Swell Octave
†Choir Sub-octave to Great
*Swell to Pedal
Great to Pedal
Choir to Pedal
Four Composition Pedals to Great
*Two ditto ditto to Swell
*Tremulant to Swell
Total Number of Stops, including Couplers 38
Total Number of Pipes 2152
Ditto before the alterations 1465

When it is taken into consideration that the tone of the original pipework is exceedingly beautiful, that Messrs. Hill's new work may be described in similar terms, and that the organ itself occupies a central position in a building peculiarly favourable for sound, it may be readily conceived that the effect now produced is extremely grand and impressive. The original parts of the instrument were furnished by Green in 1791, and that, with the exception of two stops (bassoon and cornet), which were removed about a quarter of a century since, the whole of the pipes have been carefully preserved and reinstated. Even in its *present* state, therefore, the Rochester organ may with safety be pronounced the most complete and effective instrument in the county; *not* even excepting that at Canterbury Cathedral.

(*St. George's, Hanover Square.*)
(See page 115.)

The organ at this church has just undergone extensive alterations by Hill and Son. "Until the present alteration, the organ was placed in the second gallery; but it has now been lowered to the first gallery, thereby making a great improvement. Alterations and additions have been made at different dates by England and Bishop: those at the present time amounting to an entire rebuild, comprising new action, bellows (placed at the back), swell, choir, and pedal sound-boards, &c. &c.; the great sound-board (formerly comprising great and choir) being retained and devoted entirely to the great organ. The compass of great and choir organs was GG to E in alt. omitting GG sharp; an octave and a half of pedals, including GG sharp, to which note was attached an open wood pipe, that one pipe being the entire pedal organ. The following is the list of stops, &c.:

GREAT ORGAN.
CC to G in alt.

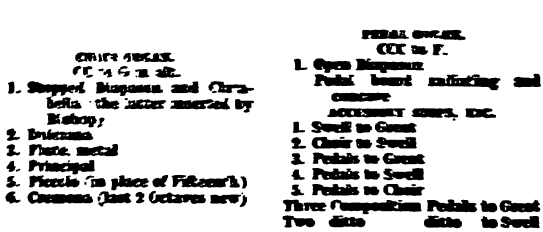
1. Double Diapason open metal to A, Bourdon last 9 pipes (new)
2. Open Diapason (probably Gerrard Smith's)*
3. Open Diapason (inserted by Bishop in place of Cornet)
4. Stopped Diapason, metal
5. Principal
6. Twelfth
7. Fifteenth
8. Sesquialtera, 4 ranks
9. Sharp Mixture, 2 ranks (new)
10. Trumpet
11. Clarion

SWELL ORGAN.
CC to G in alt.

1. Bourdon (new)
2. Open Diapason
3. Stopped Diapason
4. Principal
5. Fifteenth (from Choir)
6. Mixture, 3 ranks (new)
7. Hautboy
8. Cornopean (new)
9. Clarion (old Trumpet)

All last Octave new, excepting Fifteenth

* This open extended in the GG organ to the BB flat, the last two notes grooved into the stopped diapason. BB and BB flat now used in the double.


CHOIR ORGAN.
CC to G in alt.
1. Stopped Diapason and Clarabella the latter inserted by Bishop;
2. Dulciana
3. Flute, metal
4. Principal
5. Piccolo (in place of Fifteenth)
6. Cremona (last 2 Octaves new)
PEDAL ORGAN.
CCC to F.
1. Open Diapason
Pedal board unlimiting and concave
ACCESSORY STOPS, ETC.
1. Swell to Great
2. Choir to Swell
3. Pedals to Great
4. Pedals to Swell
5. Pedals to Choir
Three Compositions Pedals to Great
Two ditto ditto to Swell

"It will be noticed in the foregoing sketch that all the stops are complete, the compass altered to CC, and the pedal organ of one pipe increased to more reasonable dimensions. To the organ in St. George's some sort of antiquarian interest attaches, owing to the celebrated trial of skill on the occasion of the election of the first organist to the church, when Thomas Roseingrave,* the great extemporary player, distanced his competitors."

CHAPTER XVII.

THE PNEUMATIC ACTION.

ALTHOUGH the mechanism of the organ had been rendered more perfect, although it had been enriched with many new stops, and the number of key-boards had been increased in some instruments to four or five, still the defect remained, that in proportion as the power and resources of the instrument were augmented, the weight and resistance of the keys were increased; in consequence of which, it was found that, in more than one large organ, the physical force of the organist was insufficient to give full effect to the instrument, and it was impossible to avoid a defective execution in rapid

* Not Daniel Rosengrave, as mentioned at page 115.

and difficult passages. This difficulty, which had long baffled the efforts of the most eminent organ builders, was at length entirely overcome by the introduction of the *pneumatic lever movement* (said to be) invented by Mr. Barker in 1832,* and applied by him with perfect success to a considerable number of the largest instruments in France, viz. St Denis, The Madeleine, St. Vincent de Paul, St. Eustache, &c. Since

* There is much discussion as to who was the original inventor of the *Pneumatic Lever Action.* The Editor has received a letter, as well as a pamphlet (on organ building) from Messrs. Hamilton, organ builders of Edinburgh, in which they say:

"We notice that you give the credit of the *pneumatic lever* invention to Mr. Barker. It is well known that our Mr. Hamilton added it to the organ in St. John's, here, in 1835, and a paper was read at the meeting of the British Association, at Birmingham, in 1839, explanatory of a model which he then exhibited. The original model is at present in the possession of Messrs. Gray and Davison, London, where it may be seen."

But it is not stated at what earlier period than 1835 the model was completed. The idea of the pneumatic lever first originated with the late Mr. Booth, organ builder of Wakefield, in 1823; but his application was not intended for key movements.

Now, in Albrechtsberger's "Methods of Harmony, Figured Bass, and Composition," translated by Arnold Merrick, vol. i, p. 266, printed in 1834, is the following statement in a note:

"A great obstacle to the construction of very large instruments has been the heaviness and slowness of touch of the full or great organ, caused by the great addition necessary to the moveable parts of the mechanism. This impediment, however, is now removed, by the ingenious invention of a young organ builder, Mr. Barker, who undertakes to render the touch of these magnificent instruments perfectly equal, and sufficiently easy to the organist, even after the organ has been finished in the common way."

But although Mr. Barker endeavoured to introduce his apparatus in England in 1832, no one appreciated it. He therefore went to France, where his abilities and invention were at once acknowledged, and the value of this new principle understood.

its invention it has been introduced by some of our English organ builders with great success.

"The pneumatic machine is an intermediary apparatus, introduced between the finger-board and the pallets, or valves, of the organ, and is composed of as many little bellows (which we shall call power bellows) as there are keys on the principal finger-board. Each key, instead of acting on the sound-board pallet, acts only on a very small and light valve, which admits compressed air into its corresponding power bellows. The latter, supposed to be previously in a collapsed state, yields to the pressure of the air, and, in expanding, opens with great rapidity the sound-board pallets with which it is connected. These remain open as long as the fingers of the performer retain the depressed key: but no sooner is this latter released, than the valve which admitted the air into the power-bellows closes; and, another valve opening to allow this air to escape, the bellows falls, and the sound-board pallets close immediately by the action of their springs.

"Now, as by an appropriate disposition of levers, the pallets corresponding with each of the sets of keys in a large organ can be brought under the action of the pneumatic machine, it is evident that all the ordinary effects of couplers can be produced without increasing in the slightest degree the weight of the touch; and it then becomes easy to introduce other couplers, which give, in addition to the unisons, the octave above and below the note struck. In this way a single stop of 8 feet produces the effect of three stops, respectively of 4, 8, and 16 feet."

The preceding account of the *pneumatic lever* has been *taken from* a French pamphlet: "Orgue de M. Ducroquet, *de Paris,* Invention du Levier Pneumatique, Système Barker

appliqué par l'Inventeur, 1851." This excellent organ was exhibited at the Great Exhibition of 1851, and the Editor had not only the pleasure of playing on it himself, but of hearing the excellent performance of Adolphe Hesse, W. T. Best, and many other eminent organists.

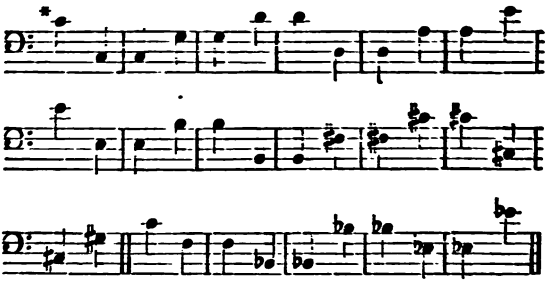
CHAPTER XVIII.

ON TUNING THE ORGAN.

THE leading principles of tuning are the same for the organ as for the pianoforte; that is to say, *every octave must be tuned absolutely perfect, and every fifth tuned somewhat flatter than perfect.* This is according to the old system of tuning, where the *wolf* is thrown upon the fifth, A flat and E flat, or, properly speaking, G sharp and E flat, which makes the chord of A flat so discordant. It has been suggested that all the organs should be tuned to equal temperament, so as to admit of the performer playing in *all keys* (harmoniums, and all instruments of that class, with fixed tones, are tuned to equal temperament); but without entering into discussion upon the advisability of using the equal in preference to the unequal temperament (the Editor being undecided in opinion upon the matter), the reader is referred to "Hamilton's Art of Tuning," also "Schiebler's Theory and Practice of Tuning in General," for these temperaments.

The stop called the *principal* is first tuned, and, as i serves as a guide and model for all the other stops, it mus be adjusted with great care and accuracy, as its influence pervades the whole organ.

The scheme for tuning the principal is as follows:

Pitch-note.

* As this C in the Bass. on the *Principal* stop, sounds the octave above the note represented—that is to say C, second space in the treble—it is necessary to know at what pitch that note should be tuned. Mr. Hamilton has not given us this information, and as there has been much discussion of late years regarding what should be the true pitch, it may here be mentioned that the pitch C should have 512 double vibrations per second, as the best that can be used for the organ, being equal numbers, beginning at one.

"It is well known that neither by the committee called together by the Society of Arts, nor by the commission appointed by the French Government, has the attempt to deal with the now intolerable evil of an extravagantly high pitch been made for the first time. Among other attempts, that of a Congress of Musicians, at Stuttgard, in 1834, has attracted most attention. This body recommended a pitch of 528 for C, equal to 440 for A, basing their calculation on a 32 feet organ pipe, giving 33 vibrations per second instead of 32. This pitch, of which the C is 16 vibrations per second higher than that of C 512, and 18 vibrations lower than the C at the present pitch (of 546), is as near as possible half way between the two latter, and therefore a quarter of a tone above the one and a quarter of a tone below the other." The Diapason Normal (1859), *C at 528*, is the present French standard pitch.—Editor.

In the above scheme, the first note in each bar is already tuned, the second is the note to be tuned. All the remaining notes of the principal stop are tuned in octaves above or below those given in the scheme.

When the principal is tuned, the other stops are to be tuned in due relation to it.

In tuning the pipes, the necessary alterations in their pitch are effected in various ways, according to their structure.

Stopped metal pipes have a cap on the top, by which they are tuned. The deeper the cap is pressed down within, or over, the pipe, the more acute becomes the pitch, and *vice versâ*.

In pipes of modern construction, the caps are generally fixed, and they are tuned by means of ears placed on each side of the mouth.

Stopped wooden pipes have a plug or stopper. Here, as in the metal pipes, the further the stopper is pressed down the pipe, the more acute becomes the pitch; the more it is pulled upwards, the deeper the pitch.

The pipes belonging to the *reed stops* are tuned by means of the *crook*, or twisted wire, already described. (See p. 26.)

If the crook is pressed downwards, the pitch becomes more acute; if forced upwards, the pitch becomes deeper.

Large open flue pipes are made sharper by cutting away a small ring round their tops, and flatter by increasing their length.

Small open metal pipes are tuned by an instrument for the purpose, called a *cone*. One end of this instrument is a solid cone, the other a hollow cone. By this instrument the tops of the pipes may be contracted or expanded, according as we wish the pitch to be flatter or sharper. If we desire to

2 z 3

flatten the pitch, we must contract the aperture at the top of the pipe by forcing the hollow cone of the tuning instrument upon it, and thus press its edges together; if, on the contrary, we desire to make the pitch sharper, we must insert the solid conical end of the instrument into the pipe and force the edges a little outwards.

Pipes that have ears or shades (except the front pipes) are tuned by means of those shades. To render the pitch more acute, we must bend the shades nearer towards the opening of the pipe; to flatten the pitch, on the contrary, we must bend the ears a little outwards.

In tuning any two pipes in the relation of unisons, octaves, fifths, or thirds, or other consonant intervals, if we observe the smallest *wave* or *beat* arise from the collision of the two sounds, the interval is not perfectly in tune, and we must not consider it as perfectly adjusted till the two notes produce one steady single sound. This does not apply to the fifths and thirds in laying the bearings.

The ranks of pipes in the compound stops that stand in the relation of thirds or fifths to the foundation stops, must always be tuned to them by perfect intervals.

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CONCLUSION.

A COMPETENT knowledge of Harmony is desirable to every musician; but to an organist it is absolutely indispensable. We shall therefore conclude by inviting the attention of the young organist to the following theoretical, practical, and other works.

THEORETICAL WORKS.

THE following list embraces works adapted to every stage of the student's progress, from the simplest initiatory book to the most elaborate treatises on Harmony, Counterpoint and Fugue, and the philosophical dissertations of the speculative German musicians. The selection has been made from the Catalogues of the publishers of this volume, which are known to be the richest throughout Europe in works of this description—the firm having "long held an undisputed pre-eminence in the production of works connected with musical education in all its branches."

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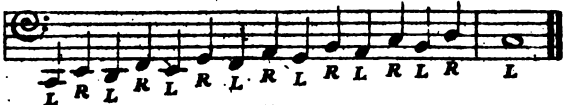
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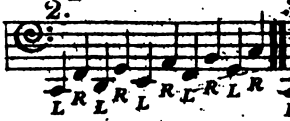
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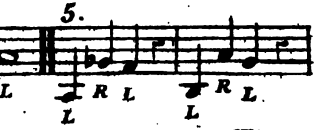
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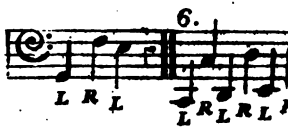
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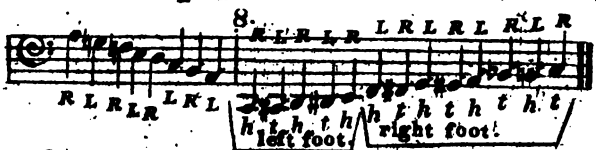
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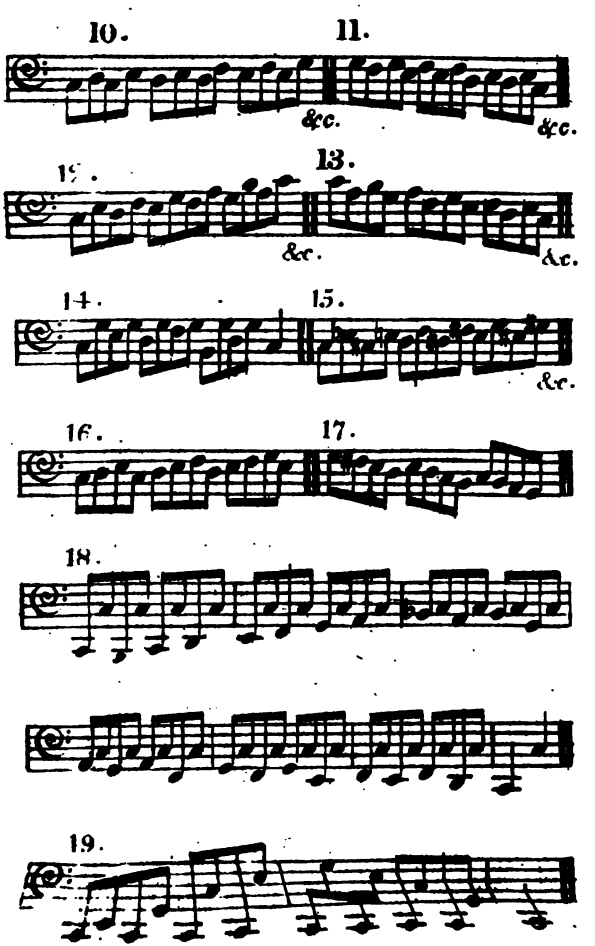
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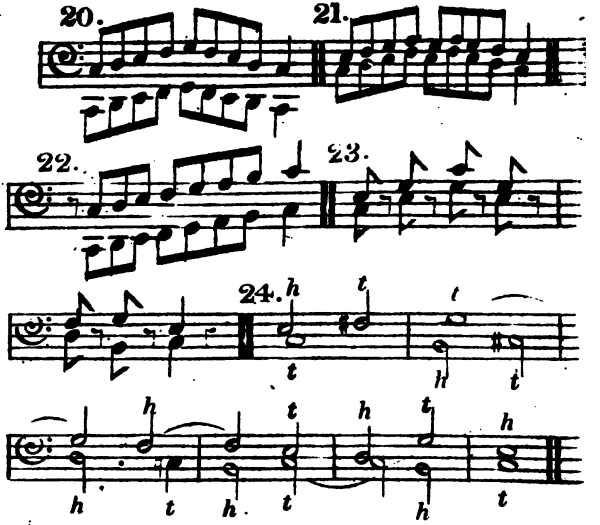
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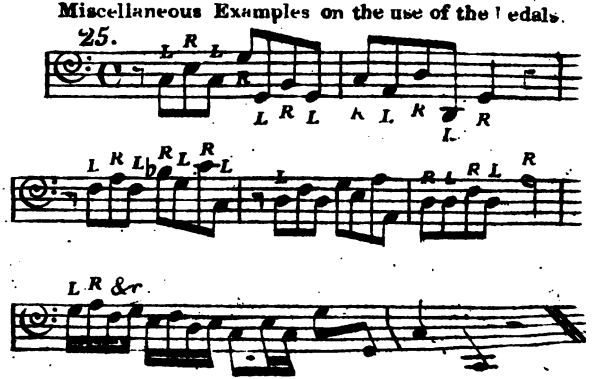

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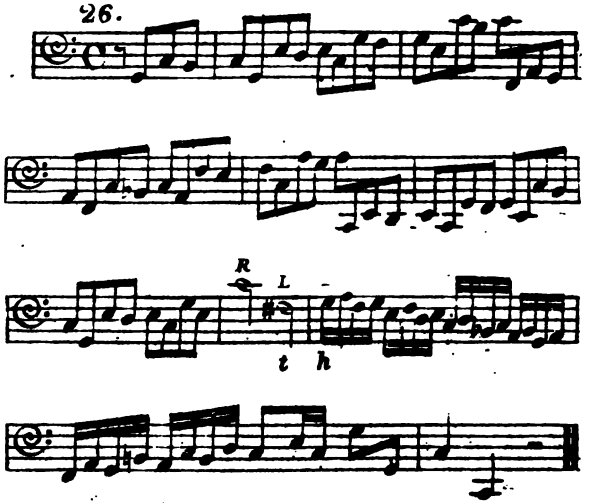
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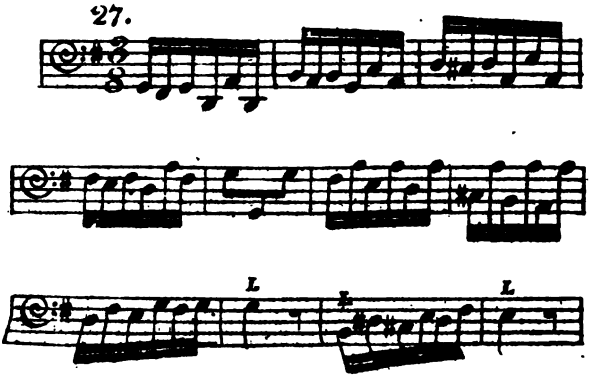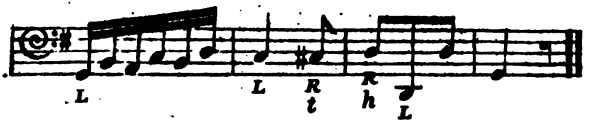
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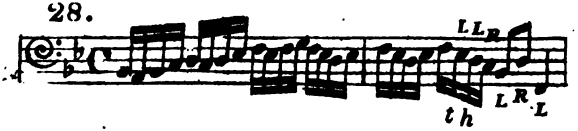

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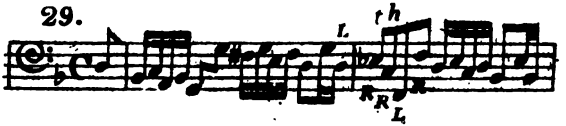
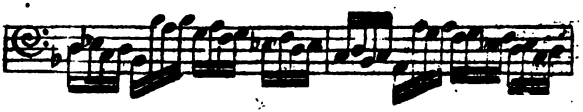
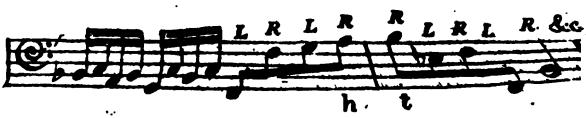
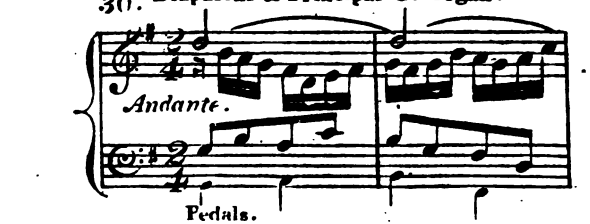


30. Diapasons & Principal Gt. Organ.

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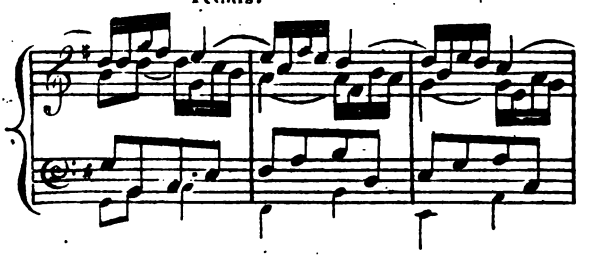
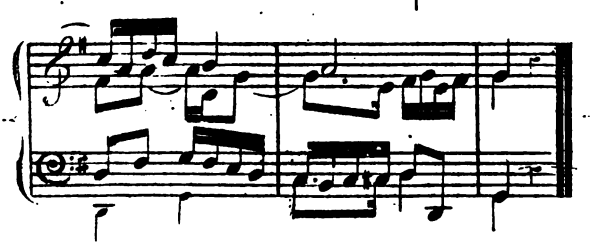
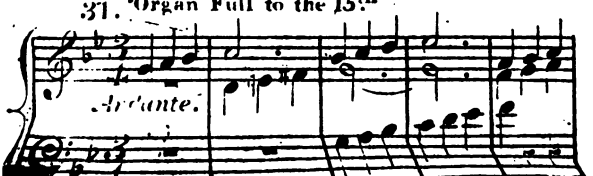
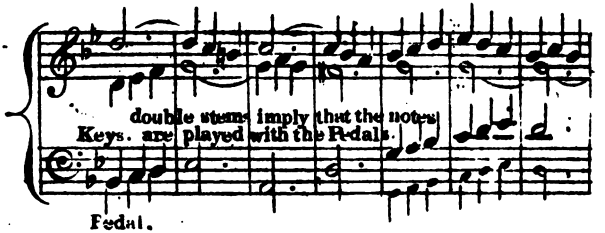
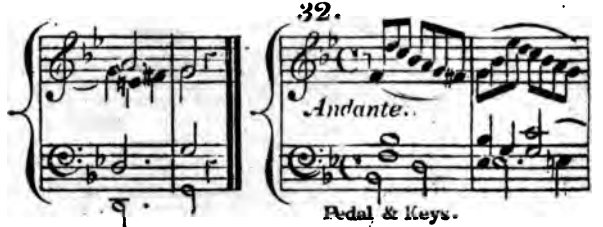
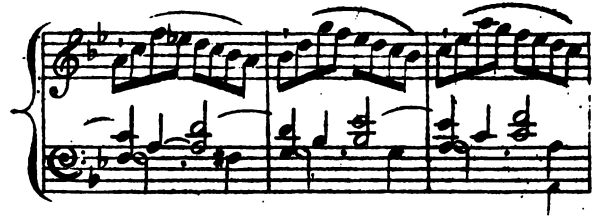
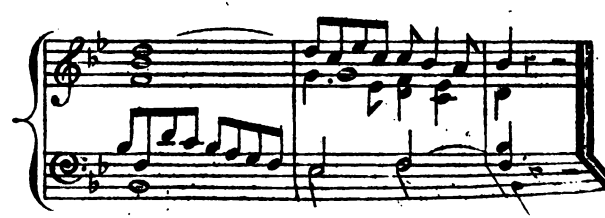
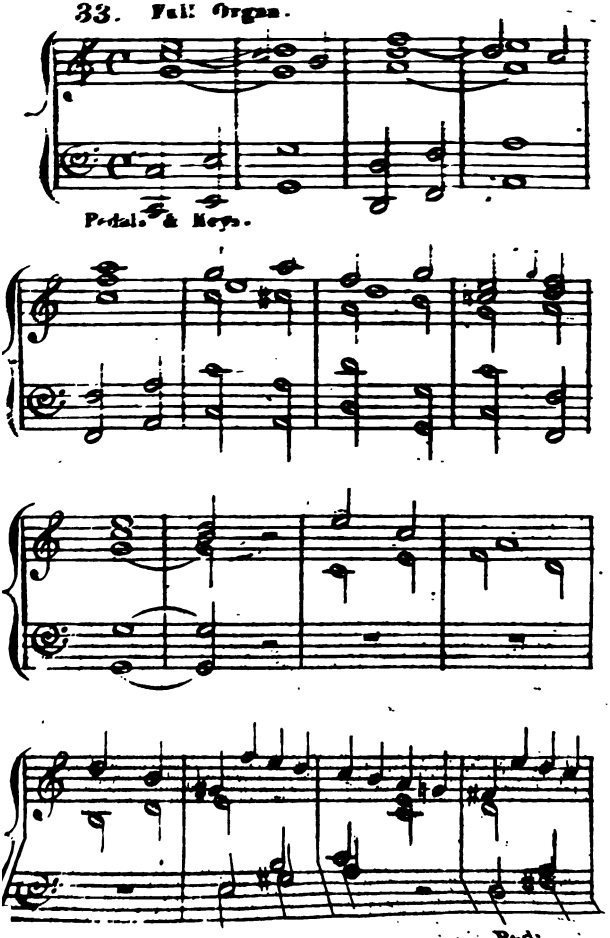
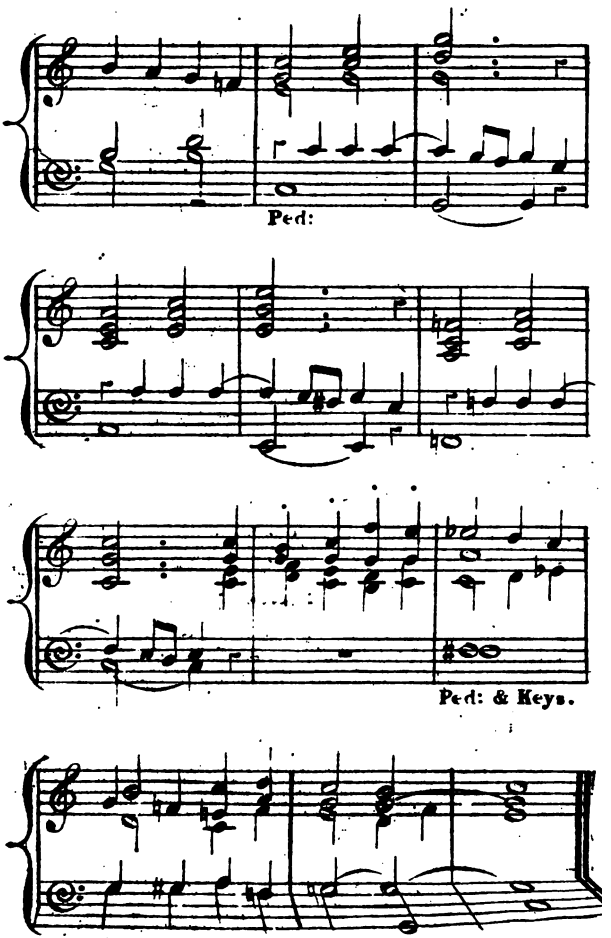
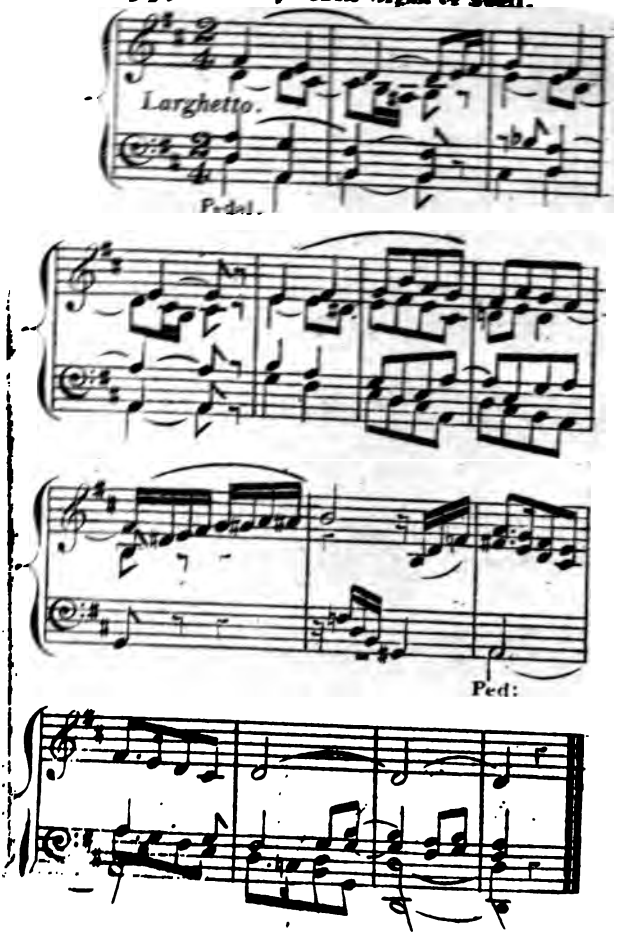
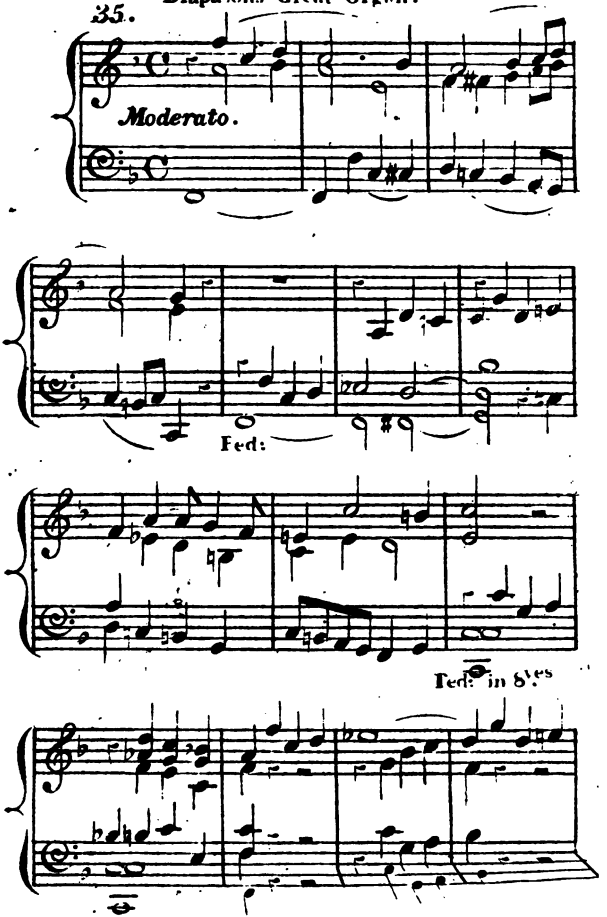
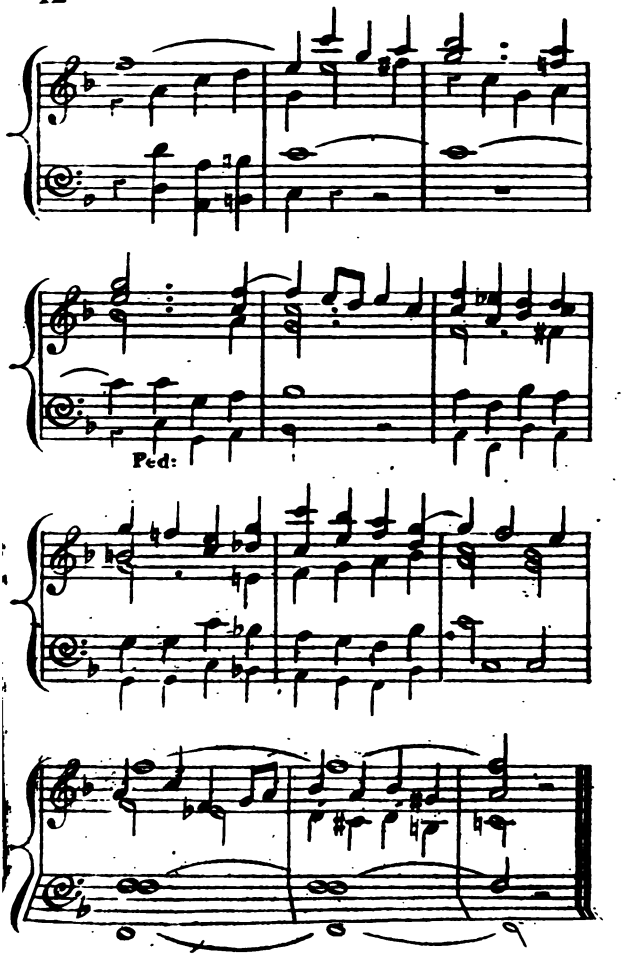

31. Organ Full to the 15th

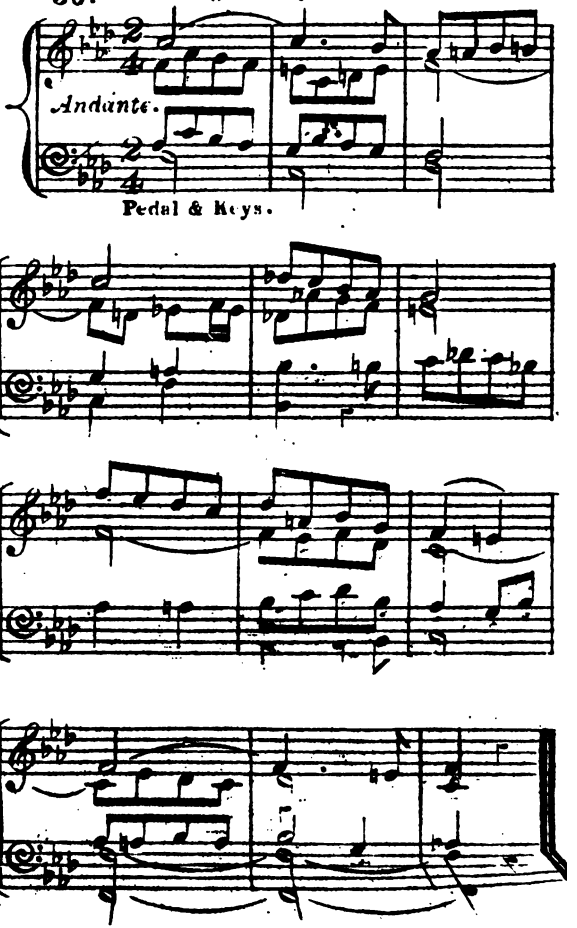
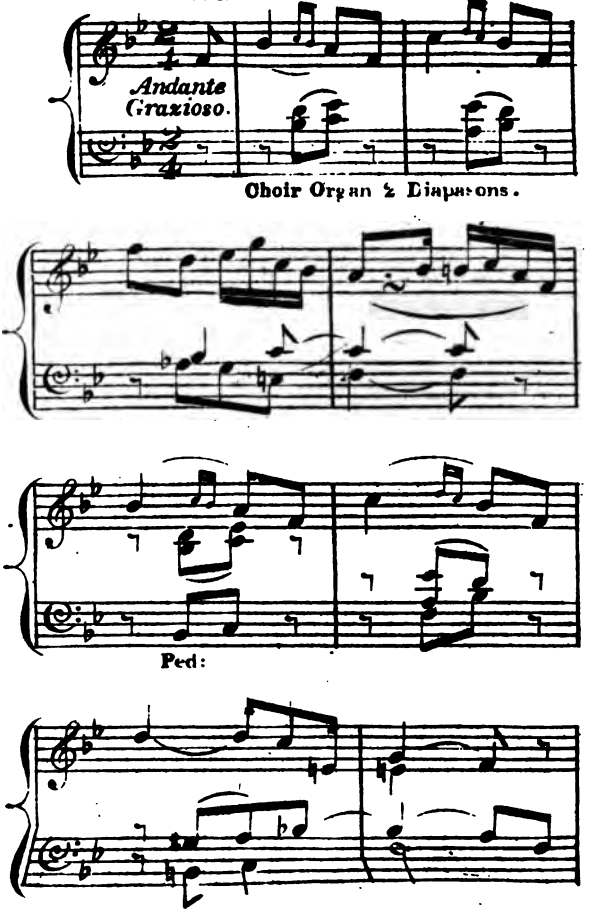
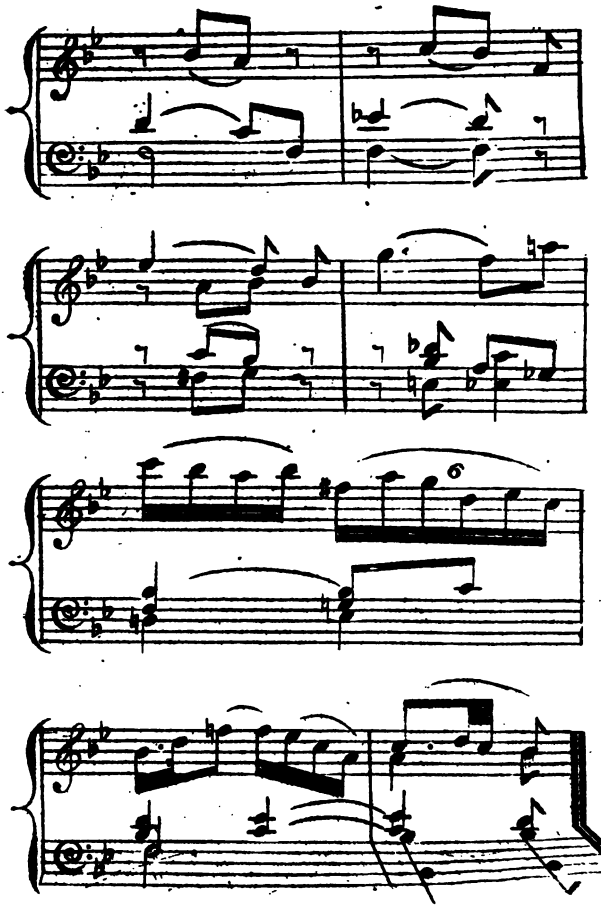
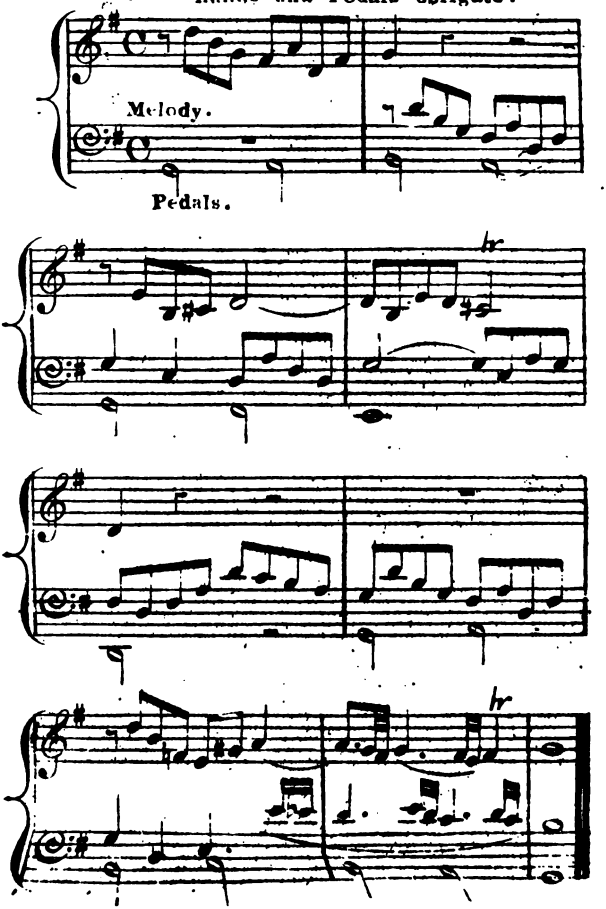


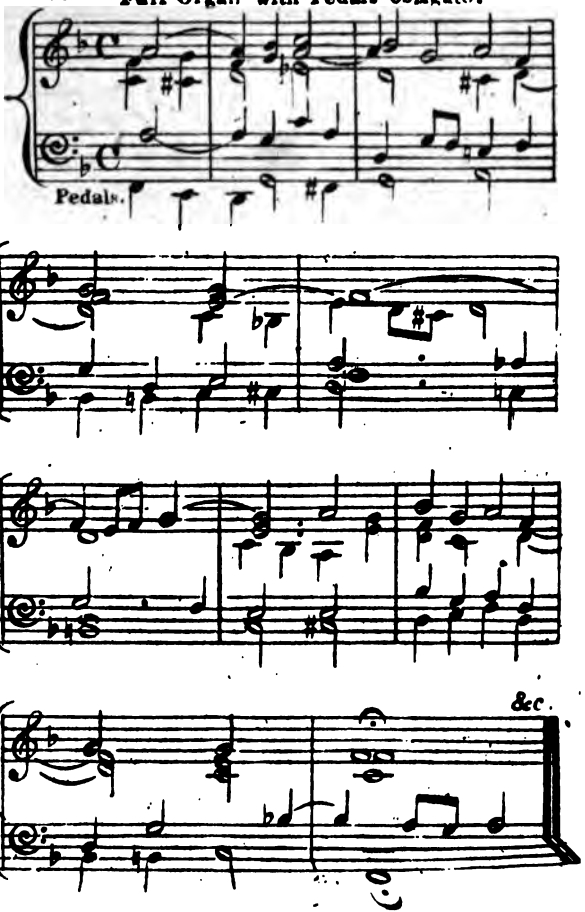

double stems imply that the notes
Keys. are played with the Pedals.
Pedal.

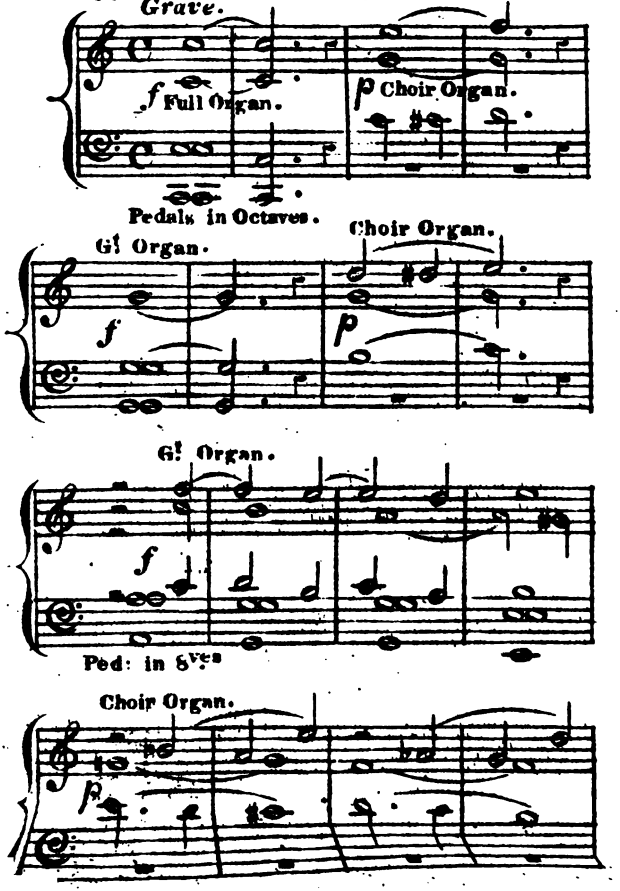
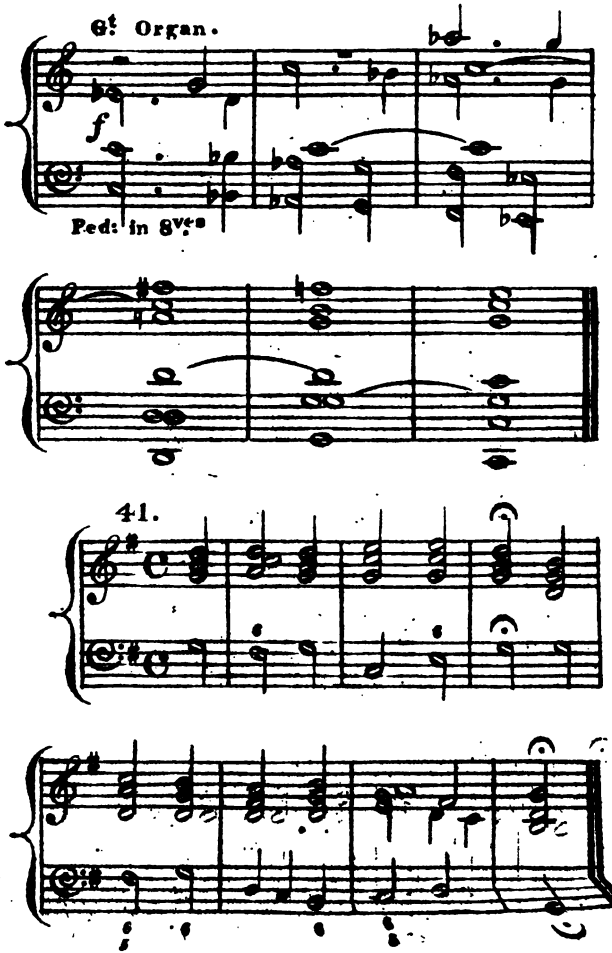
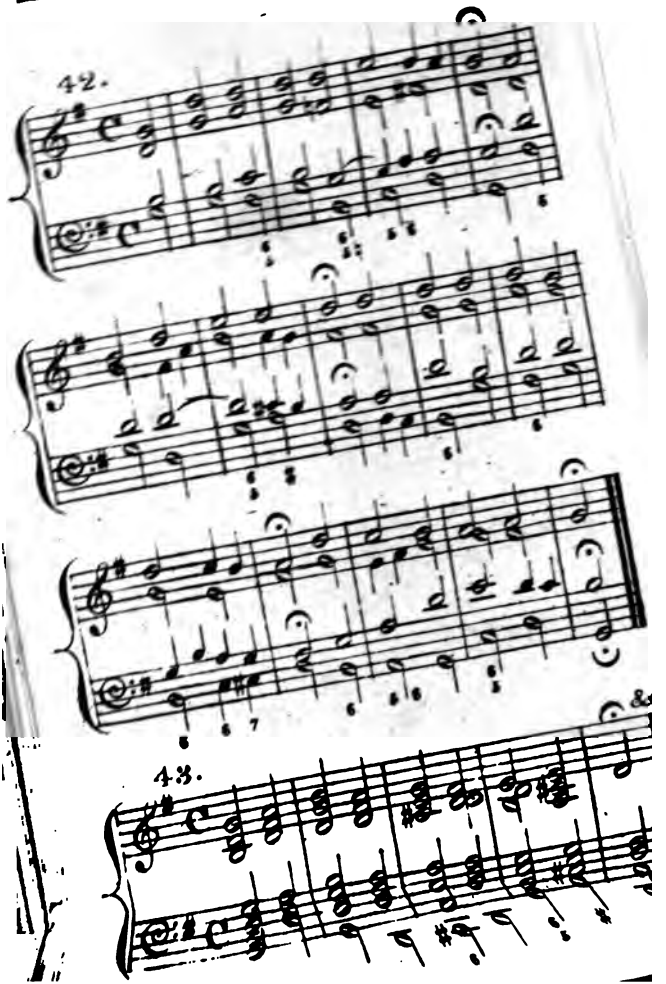
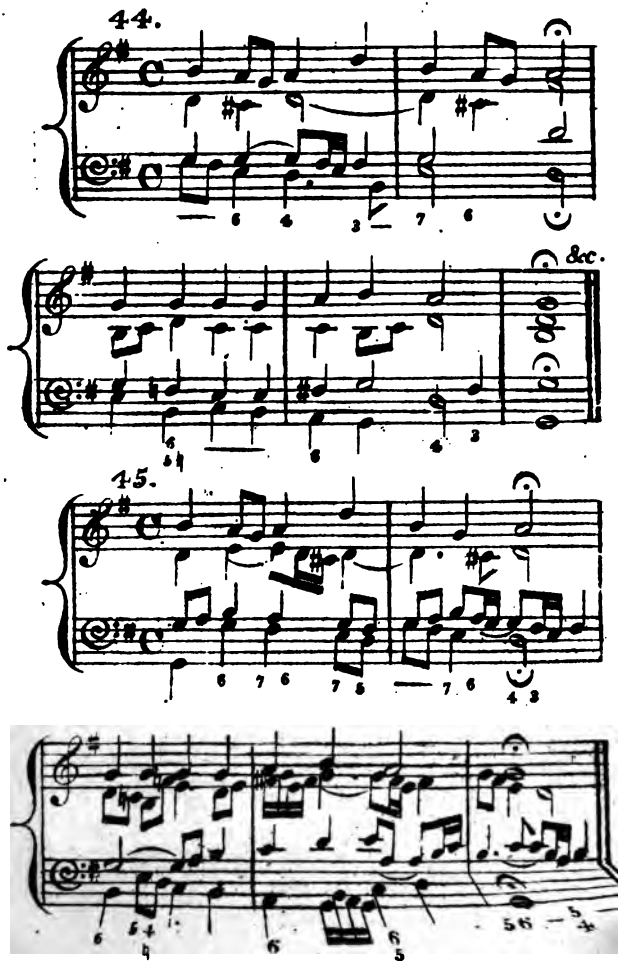
32.

Andante.
Pedal & Keys.

33. Full Organ.

Ped:
Ped: & Keys.

Larghetto.
Pedal.
Ped:

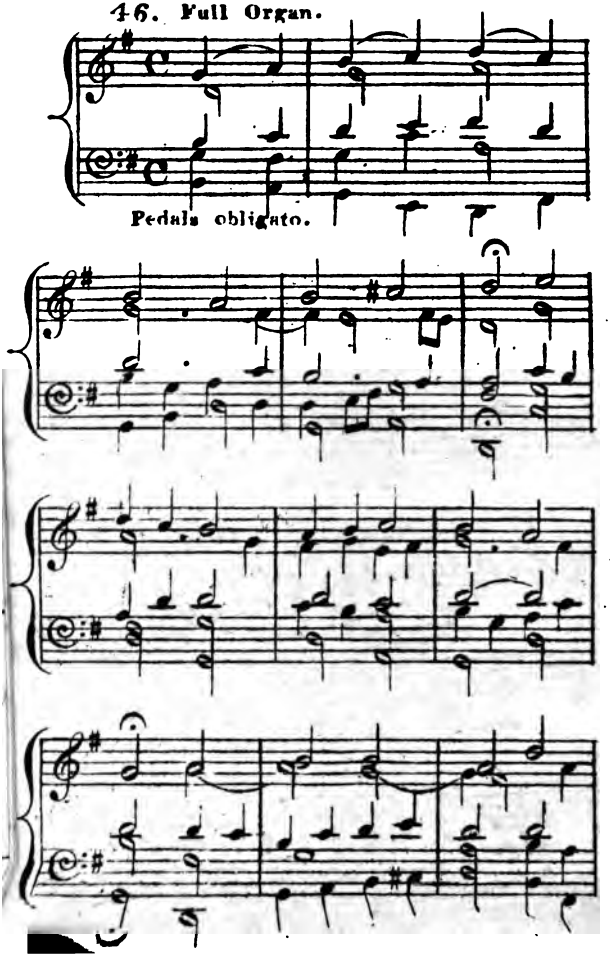
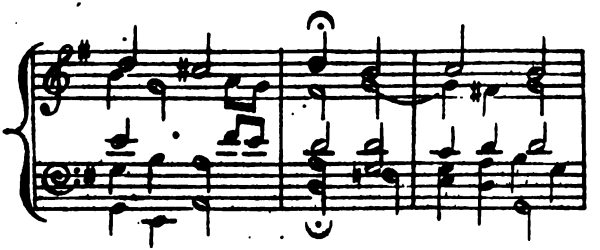
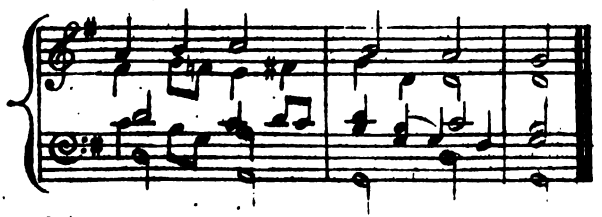
Diapasons Great Organ.

35.

Ped:

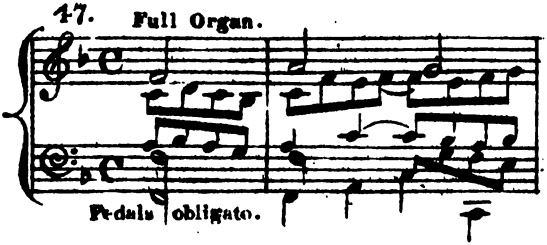
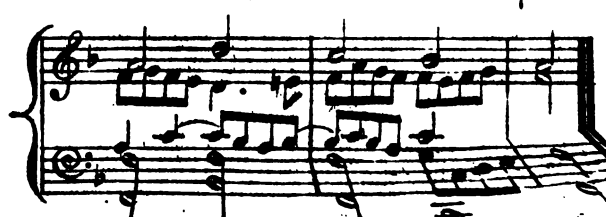
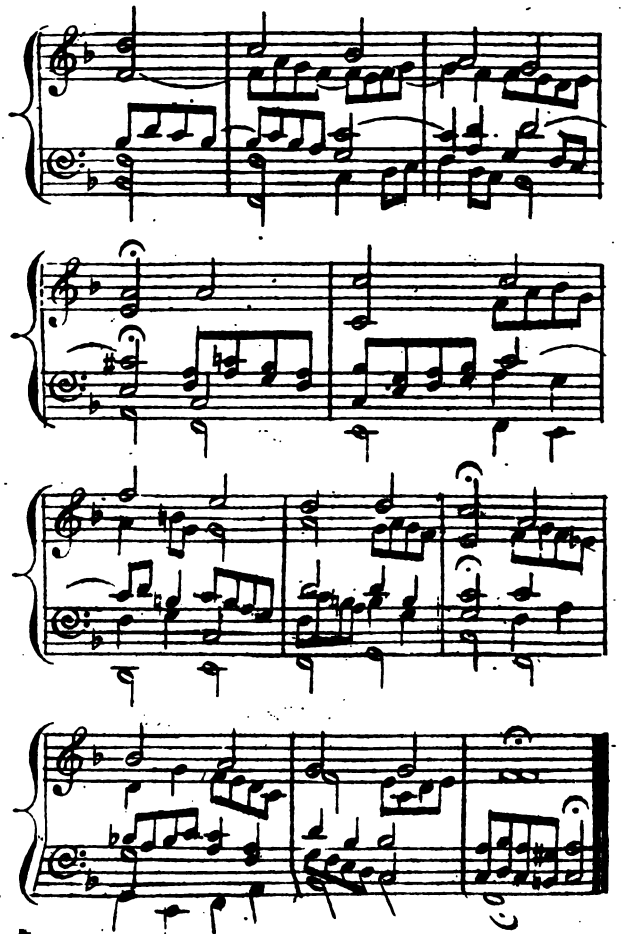
36. Choir Organ Stop 1, 2, 3, 4.

37. Swell.

38. *Chorale* Varied in 3 Parts for the two hands and Pedals obligato.

Chorale in 5 Parts.

89. **Full Organ with Pedals obligato.**

Exercise on changing the hands from one set of Keys to another.

40. *Grave.*

G! Organ.
f
Ped: in 8ves
41.

42.
43.

44.
&c.
45.

46. Full Organ.



17. **Full Organ.**



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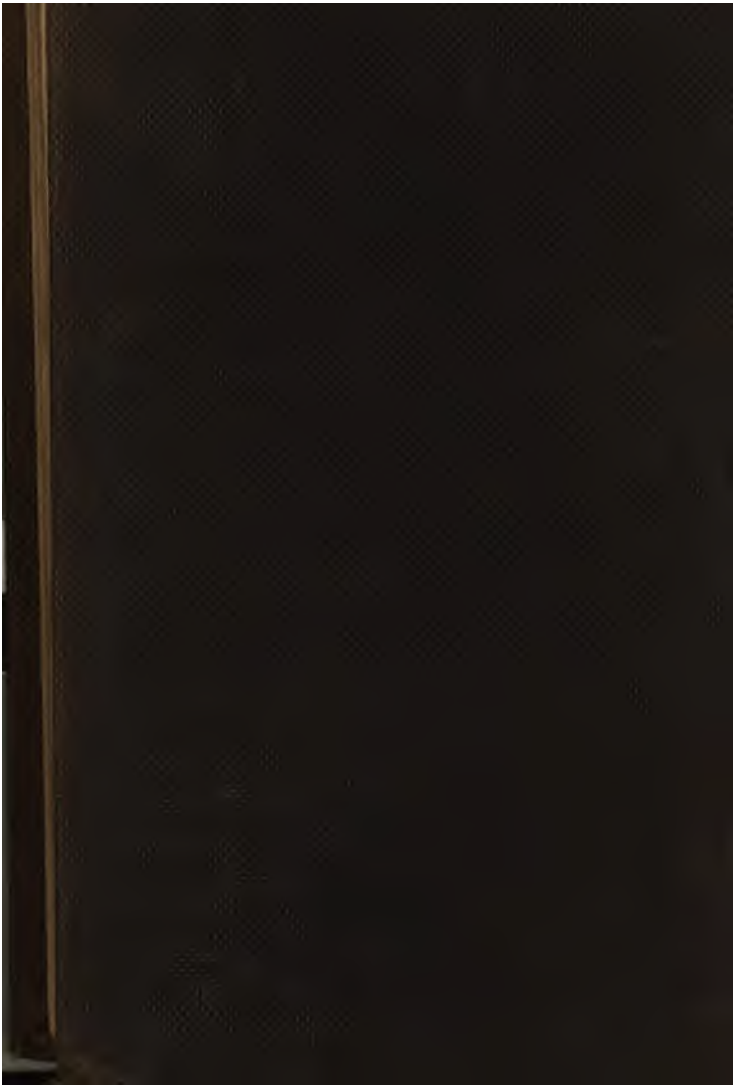
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